

Southwest Fights Worst Grasshopper Plague Since 30's

**Counts of Nymphs
Range From 20 to
1,000 Per Square Yard**

— USDA ACTION, SEE PAGE 4 —

By THOMAS E. LETCH
Croplife Staff

KANSAS CITY—Grasshoppers in the largest numbers seen in a long time are threatening crops in the western three fourths of Kansas, eastern Colorado, western Nebraska and parts of Oklahoma, Texas and New Mexico. Most concern is felt for Kansas and Colorado.

Worry about possible crop damage from the grasshoppers was intensified last week as reports poured in that the infestation in many areas is the most threatening since the plague of the 1930's.

Counts of nymphs range from 20 to highs of over 1,000 per square yard in some areas.

Populations are still confined largely to roadsides, fence rows, field margins and weed patches. However, a few reports indicated possible field-wide infestations in localized areas. And as the nymphs develop into adult grasshoppers (a matter of a week to 10 days) they are expected to exhaust the food

(Turn to HOPPERS, page 5)

Industry Leaders Optimistic About Erasing Spring Sales Lag

By LAWRENCE A. LONG
Editor of Croplife

Despite a faltering start this spring with cold, wet weather holding up sales and deliveries of fertilizer, numerous industry leaders in various parts of the country are expecting the season to end up in good shape with total tonnages, in some cases, exceeding those of last year. The exceptions to this optimistic viewpoint appear to be centered largely in the southeastern portion of the U.S. where unfavorable conditions continued for a longer time and where unusually large numbers of acres

have been set aside under the soil bank provisions.

These facts were determined in a questionnaire sent out by Croplife to a large cross-section of the fertilizer industry on the management and sales levels. Respondents included presidents of companies, sales managers, operators of mixing plants, suppliers, and other closely associated with the sales operations.

These respondents gave Croplife readers the benefit of long experience and astute observation on how business looks at this point in the 1958 season. Some offered opinions on the

government's influence in agricultural economics; others toward the impact of contract farming with industrial or corporate farms rather than smaller family units.

Other opinions were expressed regarding optimism for the future of the fertilizer industry. While some observed that the future is entirely in the hands of government and the weather man, many others took a good solid view of the years ahead and decided that they look favorable for the fertilizer industry.

In reply to the question asking whether sales this year are likely to catch up with the early season deficit, here are some of the opinions expressed by the various people:

One technical sales manager of a western firm reports that his company had gained back about 80% of the sales lost during that wet period earlier in the season. His prediction was that "we will end up this season ahead of last year."

Several respondents indicated that side dressing business will pick up much of the slack brought about by the early season slump. One agronomist in the Southwest said the season from here on (his report was received late in May) looks very promising.

Another western company representative writes enthusiastically: "In general we are having a reasonably good year. The first quarter in 1958 was rough; rain, floods, etc. But the

(Turn to OUTLOOK, page 26)

Upswing in Farm Conditions, Need for More Efficient Output Brighten Plant Food Future

Optimism for the future was voiced on all sides by respondents to Croplife's questionnaire. The following question was asked:

Much optimism for the future of the fertilizer industry has been expressed this year. On what basis are you expecting a better break for plant food sales in the seasons ahead?

Here are some of the comments received:

Dr. W. L. Garman comments: "In

general, the prices of farm commodities are up a little and optimism is high among farmers. Although we have had a slow start early in the season, seed bed preparations, plantings and crops have come up to good stands and prospects are very good for a fine crop this year. The optimism has been reflected in farmers buying a little more liberal quantities of fertilizer during the past few months."

A plant food mixer in the Southwest says that he can see a better break for plant food sales on the basis of education in the value of fertilizer and as to the proper use of the right kinds and the right amounts. "The long run growth of plant food sales must also entail realistic farming legislation permitting the growth and success of more efficient farming operations," he says.

In making his observations on the reasons why the fertilizer industry can be optimistic, Dr. W. E. Irwin, Phillips Chemical Corp., Bartlesville, Okla., presents the following points: (1) Farmers have better moisture and more irrigation facilities now; (2) they feel that their economic dip preceded the general downward trend, and was not nearly as bad as was anticipated; (3) cattle prices are better, land prices higher; (4) farm machinery sales are up; (5) education in usage

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Probable Export Dip, Gain in Surplus Seen as Cautionary Signal for Plant Food Sales

By JOHN CIPPERLY, Croplife Washington Correspondent

WASHINGTON—As the National Plant Food Industry enters its national convention deliberations it may be very appropriate to submit to it some projection of economic aspects as seen by responsible government officials. They are forecasting, on the basis of current information and data, a probably broad decline in the exports of U.S. agricultural commodities in the ensuing fiscal year starting July 1, 1958. As one official put it, "We cannot possibly export the full amount of the \$1.5 billion authorization for surpluses which we expect may be available under an extension of Public Law 480."

NPFI CONVENTION

WHITE SULPHUR SPRINGS, W.VA.—What is expected to total upwards of 1,000 persons began gathering here yesterday for the annual meeting of the National Plant Food Institute. The formal program gets underway today with two panel discussions on "Changing Farmers' Attitudes Toward Fertilizer" and "Changing Farmers' Fertilizer Practices." Also to be featured during the convention will be a review of Institute work and projects. A complete report of the convention will appear in next week's issue of Croplife.

Such a forthright statement from an official—not one from U.S. Department of Agriculture—is a red light or at least a cautionary signal for those in industry who may measure next year's prospects by this year's results.

This statement is backed up by statement from USDA officials, who also agree that our agricultural commodity exports will fall substantially from this year's level.

Again, from USDA sources comes
(Turn to CIPPERLY, page 4)

Korea Gets ICA Fertilizer Grants

WASHINGTON—International Cooperation Administration has announced \$3.5 million in fertilizer authorizations for Korea.

One authorization is for \$300,000 in nitrogenous fertilizers and \$1,200,000 in phosphate fertilizers, with contract period of June 1 to next Sept. 30. The source is worldwide and the terminal delivery date is next Nov. 30. The nitrogen authorization specifies approximately 1,000 metric tons of contained N selected from urea, ammonium sulphate and ammonium nitrate. The phosphate authorization specifies approximately 4,500 metric tons of contained P₂O₅ selected from triple superphosphate, superphosphate and fused phosphate.

A second item for Korea announced by ICA is an authorization for \$2 million in nitrogenous fertilizer. The contract period is June 1 to next Sept. 30, with worldwide source and Nov. 30 terminal delivery date. This authorization specifies approximately 7,300 metric tons of contained N selected from urea, ammonium nitrate and ammonium sulphate.

Water Solubility of Mixed Fertilizer Has Little Effect on Crops, Specialist Says

COLUMBIA, MO.—Whether or not a mixed fertilizer dissolves in water has little, if any, effect on crops, Alva Preston, University of Missouri extension soils specialist, said at the recent Soils and Crops Field Day at the university's south farm.

To test the value of water soluble plant foods, different south farm experimental plots were treated with mixed fertilizers of varying ability to dissolve in water and seeded to barley. Mr. Preston showed Field Day visitors all of the plots of barley appeared to be equal in growth whether they were treated with a mixed fertilizer that was five or 95% water soluble.

"Despite considerable discussion on the subject of water soluble fertilizers, the important thing is that plants get the needed nutrients whether or not they dissolve in water," he said.

Wheat plots being used to test 36

different soil treatments were included on a tour of the south farm at the field day.

According to O. T. Coleman, who explained this experiment to farm people attending the annual event, one of the major purposes of the series of wheat plots is to help determine at what rate and time it's best to apply nitrogen materials.

Rates of nitrogen application being used in the work vary from 33 to 132 lb. of actual plant food material. Also, major attention is being given to comparisons of fall and spring nitrogen applications.

This phase of the experimental soils work also includes the testing of nitrogen in various forms. Similar experimental work is being done to test the various degrees of solubility in phosphate materials, he said.

And, too, the plots included in the series are being used to determine what rates of phosphate and potash are needed for best results in continu-

ous wheat production. Work is also being done to find the value of different forms of the two plant nutrients. Also included in the research project is the testing of the effects trace minerals have on wheat production.

Newly-seeded plots of grasses, legumes and mixtures of the two attracted the attention of visitors at the field day.

According to George Smith, professor of soils, the new plots take the place of a series of experimental plots that were started in the 1930's. In recent years, the development of new knowledge of fertilizer values has outdated the purpose of the old plots. New plots at the university will test the value of different soil treatments on pastures and will also provide a basis for comparing the feeding value of grasses and legumes.

Corrective soil treatments applied according to soil test recommendations and proper seedbed preparation are important items in getting pasture seedlings off to a good start, noted Marshall Christy, extension soils specialist.

It's one thing to get grass and legumes off to a good start but quite another to keep a productive stand over a number of years, he continued. Top dressing with maintenance fertilizer treatments is needed to keep pastures in top production.

During the course of a grazing sea-

son, a good pasture will produce nine to 12 tons of green material. This accounts for the removal of approximately 40 to 50 lb. of both available phosphate and potash and 90 to 120 lb. of nitrogen.

Mr. Christy said that if such pastures are to be kept producing at the highest levels, it's necessary to replace the phosphate and potash removed at least every two years and the nitrogen annually.

According to Hale Fletchall, University of Missouri field crops department staff member, 2,4-D, DNBP, and simazin are the three chemicals currently recommended by his department for use on corn.

Neburon, a weed-controlling chemical, shows promise of being valuable in keeping weeds in check in newly-seeded legume stands, Elroy J. Peters, University of Missouri research associate in field crops, said at the field day. In tests in 1957 and this year to date, neburon, applied at one and two pounds an acre right after spring seedings of alfalfa, eliminated all weeds in the seeding.

NEW FIRMS

LOUISVILLE—The Hall Seed Co. here has been liquidated to settle an estate, and two firms have formed from it. They are the McDaniel Tractor Co. and the Premium Seed Co. Premium will handle fertilizers and insecticides.




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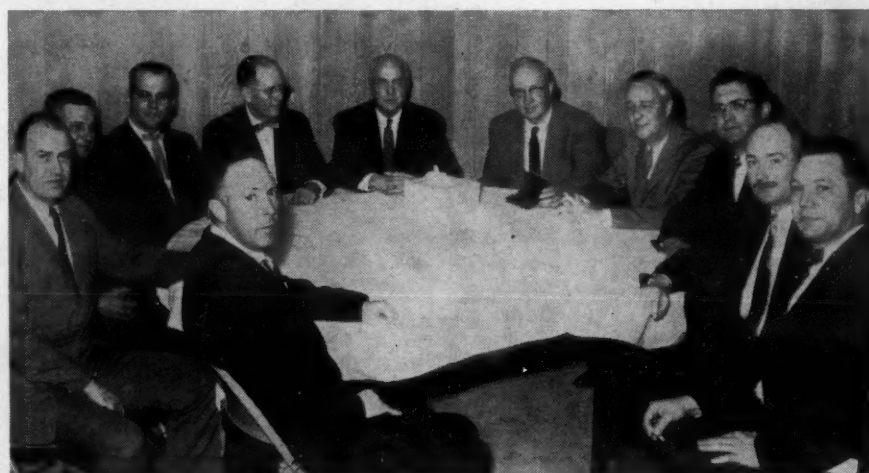
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RETIREMENT BANQUET—Members of the nitrogen products section of Du Pont's Polychemicals Department are shown above honoring Ove F. Jensen, fifth from right, at banquet in his honor at Du Pont Country Club, Wilmington, Del. Clockwise, left to right, are John Spicer, "Uramon" specialist in southeastern U.S.; Arthur M. Cole, assistant director of sales; Jac O. Ullman, assistant sales manager nitrogen products section; Dr. Myers F. Gribbins, manager of ammonia products; Marion Crady, western district manager; Dr. Frank G. Keenen, associate director of Polychemicals Department's sales service laboratory; Mr. Jensen; John H. Daughtridge, director of sales; Francis M. Jornlin, sales manager nitrogen products; Gordon H. Bethards, Chicago district manager, and Sydney F. Taylor, Philadelphia district manager.

Ove F. Jensen, Du Pont Fertilizer Specialist, to Retire

WILMINGTON, DEL. — Ove F. Jensen, sales specialist on "Uramon" ammonia liquors for the fertilizer industry, will retire July 31 after a 25-year career with the Du Pont Co.

Francis Jornlin, sales manager for the nitrogen products section of Du Pont's Polychemicals Department, announced Dr. Philip B. Turner, specialist on "Uramon" in the northeastern section of the country, will succeed Mr. Jensen and transfer to the Indianapolis area. James W. Lewis will succeed Dr. Turner and operate in the northeastern section.

Born at Newaygo, Mich., in 1893, Mr. Jensen received his bachelor of science degree in agriculture from Michigan State College in 1914 and a master's degree in soils from Iowa State College in 1916. He joined Du Pont in 1933 as a sales representative for the old Ammonia Department, covering all the southern states. Since that time he has been stationed in the states of the southeast and midwest and was appointed a specialist for UAL in 1956.

Dr. Turner, a native of Mapleton,



RETIREMENT GIFT — John H. Daughtridge (right), director of sales for the chemicals sales division of the Du Pont Co.'s Polychemicals Department, presents gold watch to Ove F. Jensen at banquet in his honor. More than 60 friends honored Mr. Jensen.

Me., was graduated from the University of Maine in 1948 and received his Ph.D. degree in soil science from Michigan State University in 1954. He joined Du Pont two years later and was appointed a specialist on UAL in January, 1957.

Mr. Lewis, a sales technologist, is a native of Mayfield, Ky. He joined Du Pont after graduating from the University of Kentucky in 1948.

Progress Report

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CIPPERLY

(Continued from page 1)

the forecast that stocks of surplus agricultural commodities will increase materially this crop year.

As of this time USDA is showing a record making winter wheat crop from planted acreage of more than one billion bushels—the final returns are yet to be counted. These same officials say that the corn carryout at the close of the corn crop year on Sept. 30, 1958 will show Commodity Credit Corp. holding not less than 1.6 billion bushels, plus some marginal surpluses—marginal in a sardonic sense — of barley, sorghum grains and oats.

Again, from USDA in its livestock division comes another commentary which deserves fertilizer industry examination.

These officials now say that the old

theory of the corn-hog ratio as a stimulant to swing production must at last be temporarily shelved, since for the last two official pig crop reports the swine farmers have shown reluctance to push production to the limits suggested by the corn-hog ratio.

On June 20 the next pig crop report will be issued, and if this report shows the swine farmers backing away from attractions of the side show tents of big corn-hog profits then all interested in the agricultural economy, including the fertilizer industry, should pause and take notice.

There is a growing theory at USDA to the effect that the swine farmers in the Corn Belt are no longer testing their business ideas on the corn-hog ratio, but more on

the quantity of corn they may hold free of government loan controls on their farms.

If that theory is correct—if it is sustained by the June pig crop report—it should be nothing less than a warning to the fertilizer industry that sales of materials to the Corn Belt next year may not be as brisk as high swine prices might indicate.

In this connection it must be remembered that USDA officials have raised their sights on the carryover of corn this year—up to a level of 1.6 billion bushels in CCC stocks. The more extraordinary data is that such a figure also indicates that Corn Belt farmers will carryout in their hands not less than 300 million bushels of free corn outside any government control.

If USDA economists are anywhere near accurate in their observations this corn supply situation come next October may have a marked effect on pocket-book disbursements by the Corn Belt farmers in 1959.

USDA is now saying the corn-hog ratio has lost its fascination in the Corn Belt. They say that the quantity of corn at home, free from government control will be the guiding factor in corn farmer planting intentions for the 1959 crop.

The Benson administration farm policy now gaining headway—or at least dampening farm belt criticism of Secy. Benson—is one designed to abate surplus accumulation.

Since previously mentioned comments reveal that export outlets are about exhausted as to volume of grains for the coming year, it must be considered that Secy. Benson will move further to control production through reduced levels of price support.

So, as far as the Corn Belt hog farmer is concerned that is all to the good. He can retain his free market corn at the farm. He can continue to deliver his surplus production to the CCC under loan programs.

But storage charges are mounting in a consequential manner. Grain is now stored in CCC account at approximately 16¢ bu. per year. How long, it is now asked at USDA, can the government continue to pile up unusable surpluses—not necessarily deteriorating surpluses—at the expense of the national taxpayer?

As the NPFI assembles in its annual convention it hardly seems appropriate that one might mention that all the greens are not perfect nor the fairways not well tailored.

Nevertheless, important industry officials told this reporter that it would be appropriate to inform the industry at this time that there are some storm signals showing.

Individual reaction to the foregoing comments is bound to be violently divided. Optimists cannot be restrained from their enthusiasm nor can the pessimists find little less than melancholy comfort in the charitable admonitions cited above.

But one common thought must be set forth on a common table—which is that the farm crisis of surplus production is like the French government, passing all understanding and possibly reaching a bursting point this coming year.

Perhaps the corn-hog farmer is showing the way as he ignores the proverbial sign post of the corn-hog price ratio. If that is true as may be indicated in the June 20 pig crop report then all compasses may be set on that point.

Heavy Bollworm Outbreak Reported in Georgia

ATHENS, GA.—“The heaviest bollworm infestation in cotton in South Georgia that we have ever seen” has been reported by W. C. Johnson and C. R. Jordan, University of Georgia extension entomologists.

USDA Mobilizes For Grasshopper Battle in Southwest

Outbreak Has Not Caused Heavy Grain Loss, Officials Say

WASHINGTON—U.S. Department of Agriculture technicians have mobilized and landed their forces in the 11 million acre grasshopper infested area of the Southwest and appear to have the situation in hand.

At least it can be said that the grasshopper infestation forecast as long ago as last fall by USDA control officials is unlikely to have any major impact on the harvest of the winter wheat crop. Damage sustained thus far appears to be concentrated largely in range land or in road side grasses.

The deployment of USDA technicians aided by state officials and county committees appears to be working on emergency schedules prepared at USDA.

USDA has offered to defray one third of the cost of treatments of range, idle and waste lands to halt the grasshopper invasion. This federal offer conforms to existing federal-state agreements which have been in existence.

USDA officials say definitely that Texas and Oklahoma wheat produced in the grasshopper infested areas is beyond danger of crop damage by grasshoppers and the emergency crew work of the USDA technicians and others probably will contain the grasshopper outbreak to range lands, roadsides and idle land.

The chemical industry emergency forces in this attack on the pest invasion consists, according to USDA officials, of aldrin and heptachlor used in an oil spray of two ounces to a gallon of oil solution per acre.

Here is the official box score of infested acreage of this pest invasion by states—mostly range, waste or idle land:

Texas, 4 million acres; full cooperation of farmers and ranchers in this state is already reflected through voluntary individual action wherein the individuals are bearing their two-thirds share of the cost of protection.

Oklahoma, one million acres affected, range land.

Colorado, the major complainant over alleged federal inaction, 400,000 acres of range land infested. Despite the heated criticism of USDA in the federal emergency program, it has been learned that individual farmers have of their own initiative joined the USDA strategy to stamp out the grasshoppers. USDA officials doubt that there will be any substantial damage to the Colorado wheat crop.

Kansas, the big wheat state, is reported to have suffered some crop damage, but the main infestation is along roadsides, idle or waste land. Here cooperative state-federal county program activities contemplate spraying roadsides and other infested areas amounting to about 125,000 acres of roadside and idle land in 17 counties in western Kansas.

The urgently needed lesson to be learned from this outbreak is that last fall the alert pesticide control division of the USDA Agricultural Research Service forecast the possibility of this outbreak but the local authorities failed to prepare for the current attack.

New Name for Hooker

NIAGARA FALLS, N.Y.—Hooker Chemical Corp. is the new name for Hooker Electrochemical Co. Last month Shea Chemical Corp. was consolidated into Hooker.

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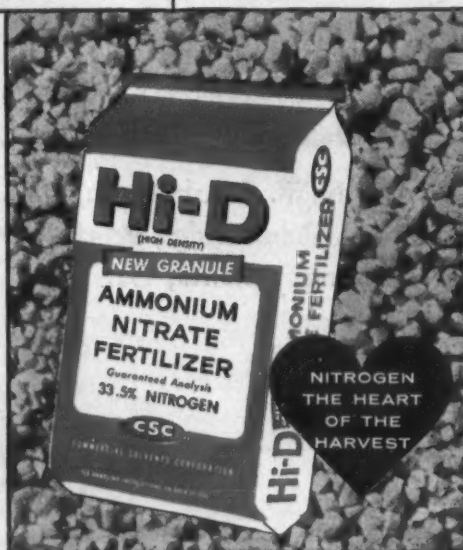
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HOPPERS

(Continued from page 1)

supply in these areas and migrate to fields.

County, state and federal officials are mobilizing to fight the menace. Gov. George Docking of Kansas and Gov. Stephen L. R. McNichols of Colorado asked President Eisenhower to declare the area a disaster region, eligible for funds from the President's emergency fund, in an effort to prevent serious losses.

The President last week instructed

the U.S. Department of Agriculture to see that all available federal assistance is extended through the regular USDA channels to control the grasshopper invasion.

Sixteen counties in eastern Colorado and 26 counties in western Kansas are eligible to receive federal help in defraying the costs of a spraying program at this time. In areas designated for federal help, one third of the cost is borne by USDA. USDA is to furnish its help in the form of insecticides. Twenty-five pest control specialists of the Agricultural Research Service have been moved into the 5-state area in the last few days to assist some 22 department

technicians previously working with state officials. A special office has been set up in Garden City, Kansas, to control the program in that area.

A Kansas insect survey report prepared by David L. Mathews, survey entomologist, and Dell E. Gates, extension entomologist, recommends spraying of field margins before grasshoppers migrate.

"Wheat, barley and sorghums are generally less affected by the small 'hoppers' because the grain crops usually mature before the grasshoppers become winged adults and move out into the fields," the report said.

Many farmers are already under way with their own spraying programs. One farmer in Scott County, Kansas, who farms 4,500 acres of which 1,700 acres is in wheat, said that last week he had spent \$600 on grasshopper control.

In Pawnee County, Kansas, an aerial attack will be launched as soon as insecticide can be obtained in adequate quantity, it was reported by the county commission.

In western Nebraska, grasshoppers are also hatching in large numbers. The nymphs are still in the hills and have not moved down into cropland in any appreciable numbers, it is said.

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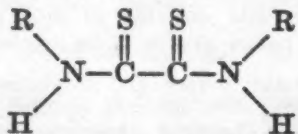
2,837,407

Method of Reducing Metallic Corrosion by Fuming Nitric Acid by Addition of Fluoride Ion to Acid. Patent issued June 3, 1958, to Eric Rau, Toms River, N.J., assignor to the United States of America. A method for inhibiting corrosion of untreated stainless steel containers by white fuming nitric acid stored therein, said method comprising adding at least 1% of an inhibitor such as one from the group consisting of hydrofluoric acid, sodium fluoride and ammonium fluoride to said acid.

2,837,417

Method for Modifying the Growth Characteristics of Plants. Patent issued June 3, 1958, to John R. Fisher, Fresno, Cal., assignor to The Dow Chemical Co., Midland, Mich. A method for modifying the growth charac-

teristics of plants which comprises exposing the plants to the action of a growth-altering amount of a dithioamide of the formula



wherein R represents an alkyl radical containing from 2 to 6 carbon atoms, inclusive.

2,837,418

Process for Producing Mixed Fertilizers. Patent issued May 3, 1958, to James E. Seymour, Collinsville, Ill., assignor to Central Farmers Fertilizer Co., Chicago, Ill. A self-granulating process for producing high analysis mixed fertilizers comprising the steps of (1) combining at least one particulate metaphosphate selected

from the group consisting of calcium metaphosphate, potassium metaphosphate and sodium metaphosphate with water and at least one strong mineral acid selected from the group consisting of hydrochloric acid, nitric acid, phosphoric acid and sulfuric acid to provide a reaction mixture in the form of a slurry, (2) intimately mixing said reaction mixture and thereby initiating hydrolysis of the metaphosphate with such hydrolysis progressing exothermically as mixing continues, (3) then incorporating neutralizing ammonia in said reaction mixture in proportion for substantially complete neutralization of the acid constituents of the reaction mixture, and (4) then further intimately mixing said reaction mixture as said neutralizing ammonia reacts with said acid constituents and, by such further mixing, causing the reaction mixture to be converted to a substantially fully reacted fertilizer product in the form of solid granules which are substantially homogeneous as to chemical constituency, the proportion of

acid employed being in the range of from 0.1 to 1.5 parts by weight per part by weight of said metaphosphate, and the proportion of water employed being 1-5 times the stoichiometric quantity required for complete hydrolysis of the metaphosphate.

2,837,534

Process for Extracting Pyrethrin Synergists from Sesame Oil. Patent issued June 3, 1958, to Ralph L. Tracy, Miller Place, N.Y., assignor to Norda Essential Oil & Chemical Co., New York. A process for the extraction of pyrethrin synergists from sesame oil which comprises dissolving the oil in from 0.25 to 8 volumes of gamma-butyrolactone at a temperature of at least 130° C. but below the boiling point of the gamma-butyrolactone, cooling the resulting solution to a temperature below 60° C. at which the solution separates into a gamma-butyrolactone layer and a sesame oil layer, separating the gamma-butyrolactone layer from the sesame oil layer, and recovering pyrethrin synergists from the gamma-butyrolactone layer.

Industry Trade Marks

The following trade marks were published in the Official Gazette of the U.S. Patent Office in compliance with section 12 (a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. (See Rules 20.1 to 20.5.) As provided by Section 31 of the act, a fee of \$25 must accompany each notice of opposition.

Mock's Superturf Long Green, in hand-lettered design, for chemical fertilizer. Filed Oct. 25, 1956, by Mock Seed Co., Pittsburgh, Pa. First use May 15, 1956.

Fert-I-Mulch, in capital letters, for mulch or soil topping made of corn-cob meal. Filed April 26, 1957, by Paxton Processing Co., Inc., Paxton, Ill. First use Feb. 15, 1957.

Ferti-Mulch, in capital letters, for compost, peat moss mulch. Filed April 26, 1957, by Albert L. Pemberton, doing business as The Ferti-Mulch Co., Round Rock, Texas. First use April 1, 1955.

Root Pals, in capital letters, for cultured inoculant for application to vegetation for acceleration of growth and a long healthy life. Filed Sept. 30, 1957, by Hyper-Humus Co., Bryn Mawr, Pa. First use Aug. 12, 1957.

Monsanto Makes Executive Changes in Organic Sales

ST. LOUIS—Several executive changes in the sales department of Monsanto Chemical Co.'s Organic Chemicals Division were announced recently by Arthur P. Kroeger, director of marketing for the division.

Herbert S. Parham of St. Louis, an assistant director of sales, became a director of sales for the division, filling a vacancy created by the appointment of William M. Russell as assistant general manager of Monsanto's Overseas Division.

J. Paul Ekberg, Jr., of Los Angeles, district sales manager there, has been named an assistant director of sales succeeding Mr. Parham. He returned to St. Louis for the assignment.

Armin L. Klemm of St. Louis, manager of personnel and training for the division's sales department, has been appointed district sales manager at Los Angeles, succeeding Mr. Ekberg. All of the appointments were effective June 15.

GARDEN DEALERS ORGANIZE

PORTLAND, ORE.—A number of Portland area garden dealers, under the sponsorship of the Oregon Feed and Seed Dealers Assn., have organized a metropolitan district. Ralph Guynes, Beattie & Guynes, Oregon City, was elected district governor. He is a past president of the Oregon Seed & Feed Dealers Assn. and will automatically become a member of the association's board of governors and will represent the garden supply industry at board meetings.

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Yes, our aim is to provide every customer with the best in service. Whether your order calls for a regular or "rush" shipment . . . you can count on prompt attention to your requirements as soon as the order is received.

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We look forward to the opportunity to serve you and our Technical Service Department welcomes your inquiries.

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FUTURE

(Continued from page 1)

and sales of fertilizer are improving; (6) the increased population and a long range inflationary trend. These, Dr. Irwin says, are points which give weight to the current optimism felt in the trade.

A California agronomist observes that better plant food sales are resulting from the good service and service selling being operated by the industry at the present time.

Here is the way a southwestern executive puts it: "Better presentations of how the maximum use of fertilizers will increase the farmers' net income will result in a gradual increase in fertilizer usage. I do not look for a large increase in fertilizer consumption in any one year, although most of the experts writing such articles indicate that the

sky is the limit. Maybe they have to be optimistic, but I question their down-to-earth information."

From Georgia comes this comment: "The trend is away from the soil bank, which results in more acreage of row crops planted plus the activities of our extension people in encouraging the farmer to use recommended grades and rates of fertilizer on all crops and on pastures."

Here are other ideas, some similar to previous ones mentioned, garnered from the mass of data received by Croplife from respondents. One pins his hopes for a good year ahead to more aggressive selling and better service on the part of the industry. "The need for a better profit to stay in farming will mean an increase in the use of plant food," he says. "Bet-

ter education of the farmer along the lines of larger profits from greater investments in fertilizer," adds another.

"Increasing realization on the part of farmers that they must use fertilizer to reduce production costs is a big factor. Increasing population in the long run will also be helpful in producing greater fertilizer volume."

"Continued increases in the use of fertilizer will come from a healthier farm economy and will channel more money for farm production expenses including that of fertilizers."

"Fertilizer, especially straight goods, should continue to increase. This assumption is based on an increasing population, present low fertilizing rates, increasing education on fertilizer utilization by plants and more knowledge concerning soil physiology and biochemistry. Adequate moisture is a must in these assumptions."

"The basis for optimism in the di-

rect application field of NH₃ lies in the effectiveness of local distributors where they are doing a job of merchandising a sound, complete fertilizer program. Their business is picking up annually, and they are getting more new customers as well as selling greater amounts to their present customers. Many are also selling solid mixed fertilizers so, in my opinion, a manufacturer doing a good job of selling should be quite optimistic."

"The key to increased use is a better educational plan, effective at the farm level. Community agricultural leaders, dealers, and more good farmers need to know better the economics and agronomics of fertilizer use. Still too many farmers use yesterday's management practices today for tomorrow's agricultural requirements."

"My basis for expecting a better break for plant food sales in the seasons ahead is the increasing population; decreasing amounts of land available; and the resultant increase in fertilizer usage."

"The opportunity for use of more fertilizers is becoming better known. The future looks big indeed."

"Better moisture conditions generally, farmers have had two years of good crops; farmers are gradually becoming more fertilizer conscious; these are the reasons for our optimism."

"We are optimistic about the future because of more freedom for farmers' action, and a steady improvement for the farmers' economic status."

"Greater realization of the need of plant food by farmers, and the increasing food and population curve are good reason for optimism."

"Better farm income, better education and perhaps more worldwide exchange of surplus farm commodities look good for the future."

"More plant food will be used per acre, the rates are going up; more continuous corn is being planted; dairy grass fertilization in the southeast is on the increase; more irrigation, to mention only a few of the factors entering into optimistic outlook."

A few respondents, however, voiced more caution for the future outlook for the industry. Here is what some of these observers had to say:

"We do not look at the future optimistically. We approach each season with the attitude that it will be rougher than the last one."

"We do not agree with that optimism. We are completely at the mercy of the weather conditions in the area we serve."

"I don't expect a better break for plant food sales in the seasons ahead."

A sales executive in the Southwest commented that our question was a "very leading one." He indicated that his company was not particularly optimistic for the future but is at the same time expecting a normal rate of growth through the years ahead.

Aphids Heavy in Northern Oregon

MILTON-FREEWATER, ORE.—Heavy infestations of aphids in northern Umatilla County pea fields are being battled by spray operators, canning company officials report. They have been hindered by the weather, however. One official said the aphids are "about as bad as I've seen them." He said this was particularly true in Spofford County, around Milton-Freewater and in the stateline area.

Lime Sales Decline

WASHINGTON—Agricultural lime sales during March totaled 17,083 short tons, compared with 24,826 short tons in March, 1957, the Bureau of Mines reports. March, 1958 sales included 3,118 short tons of quicklime and 13,965 short tons of hydrated lime.

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Systemic Controls Viewed Favorably At Livestock Insecticide Conference

By THOMAS E. LETCH
Croplife Staff

MANHATTAN, KANSAS — The use of systemic insecticides to control cattle grubs is no longer a dream of the future. It is a method that is in use right now and promises to grow as the chemical industry introduces more new products and perfects their use to fight the pesky insect that costs the livestock industry an estimated \$100 million a year.

This fact was evident at the Work Conference on Systemic Insecticides for Control of Livestock Insects held here at Kansas State College May 26-27. Sponsored by the Entomology Research Division, U.S. Department of Agriculture, and Section D, Medical and Veterinary Entomology, Entomological Society of America, the conference attracted approximately 140 scientists from colleges, government and industry. Virtually every state in the U.S. was represented, along with several foreign countries.

Considerable data were presented informally by commercial companies having products either on the market or being tested, and by cooperating experimenters.

Four products were the subject of most of the discussion. They are Trolene (Dow-ET-57), Dowco 109, Co-Ral and Dimethoate. All are phosphorus systemic insecticides. Trolene and Dowco 109 are products of Dow Chemical Co. Co-Ral is a product of Chemagro Corp., and Dimethoate is an American Cyanamid Co. product.

Trolene was introduced in 1956 for use as a bolus, to be administered in one oral dose to cattle. Dowco 109, still in an early experimental stage, is for administering as a bolus or as a spray. Co-Ral, being introduced this year, is a spray. It has a systemic as well as external insecticide effect. Dimethoate is fed in the feed, administered as a bolus or injected intramuscularly.

Trolene as a bolus and Co-Ral as a spray are the only methods that have been approved for use by the Food & Drug Administration.

While the experiments have not all produced similar conclusive results, it is generally conceded that the products are useful and will be gradually counted on more by livestock producers.

What method of treatment will become favored is open to conjecture. Currently no use of any product in feed is approved. However, results of a number of experiments indicated that this method of application is successful in killing the grubs.

While considerable knowledge has been acquired about the use of these products in the last two years, there are still unanswered questions. Weight gains of treated animals compared with control lots vary, with some cattle gaining better and some not doing as well as the controls. A few toxicity problems have been encountered. And control of the grub has not been very great in some tests while it has been complete in other tests. The answers to these questions are being sought through cooperative research.

The loss to the livestock industry each year because of cattle grubs is estimated at approximately \$100 million in the U.S. and Canada. Hide damage, milk and weight losses as the result of cattle running from the adult heel fly which lays eggs that become the grubs, have long been recognized as a serious problem. There is often an added toll in the form of physical damage to animals with resultant infections and screw-worm infestations.

Jim Rosse, Livestock Conservation, Inc., Omaha, Nebr., reported on a survey being carried on by his organization through the meat packing industry. On the basis of an 18-week

study, the group has estimated that the annual loss from hide damage and from parts of the carcass that have to be trimmed away after slaughter because of the grub cutting through, will amount to \$13 million, Mr. Rosse said. On some animals the losses will go as high as \$5 per head.

After the conference, many of those attending were guests of the Chemagro Corp. for a tour of its new plant, research and administrative facilities in Kansas City.

FARM STORE OPENS

HOPLAND, CAL.—Proctor's Farm Supply Store opened here recently. William M. Proctor is the owner of the store which specializes in a variety of feeds for farm use.

California Chemical Employment Declines

SAN FRANCISCO — Employment in chemical manufacturing industries declined again between March and April of this year, according to estimates of the Division of Labor Statistics and Research of the California State Department of Industrial Relations.

There were 37,500 wage and salary workers employed in the manufacture of various types of chemical products as compared with 37,900 during March. This compares to 38,700 the previous April, close to the all-time high. The March-April drop in 1957 was only 200 workers compared with this year's 400.

The production worker segment of this total nonetheless held to the same average earnings during the two months and increased by an even \$4 a week their earnings over the previous April. Weekly earnings were estimated at \$98.93 during both March

and April as compared with \$94.93 in April of 1957. The hourly earnings were \$2.44 during the two early spring months this year and \$2.32 in April of last year.

Dusting Mishap

SAN FRANCISCO—The pilot of a small crop dusting biplane, which was disabled after striking power lines averted possible tragedy by guiding his crippled craft away from a heavily populated area of Contra Costa County and landing at a nearby airfield. Harold Smart, a veteran of 20 years of accident free flying, was dusting insecticides on 12 acres of walnut trees in the eastern section of the county. Flying at about 25 feet, he suddenly found his Stearman cutting through the 4,000 volt cables. The plane somehow kept its airspeed, and Mr. Smart managed to climb to 1,000 feet which was sufficient height for the 15 minute flight to the airfield.

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to \$20,000
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At the company's invitation, Jack White put Union's 5-Star Packaging Efficiency Plan to work and made a detailed analysis of the existing bag designs.

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packaging line by converting all the Sewn Valve bags to Pasted Valve bags which led to more efficient palletizing and warehousing. (2) Simplifying and reducing bag print copy to a less expensive, faster reading identification print.

Union's 5-Star Packaging Efficiency Plan may help you save money on your Multiwalls.

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Fertilizer User Can Be Dealer's Best Salesman

By Al P. Nelson
Croplife Special Writer

Bill Coleman gave his wife a list of a few items he wanted in town, and as she prepared to get ready to drive the family car in, he said, "Ma, I do believe we oughta buy about 15 copies of that Dirk County News and send to our relatives. We just gotta show 'em we kin farm in this part of the country, too."

His plump wife smiled. "So you want to brag a little, eh, Bill? Just 'cause that fertilizer dealer published your picture and a picture of your corn in mid-summer and then a picture of what yield you got? Our relatives will wonder what got into you

after all these years. You wrote them Christmas cards, that's all. Now you want to send them big ad clippings out of the local paper."

"Now, Ma, don't rib me like that. When else did I get my picture in the paper—'ceptin' when we was married 18 years ago. That fertilizer dealer's a mighty smart man. He knows a good farmer when he sees one."

His wife smiled. "All right, Bill, but I never thought I'd see the day when you'd buy 15 copies of the same newspaper."

The farmer is proud of what he ac-

complishes on his farm, and the wise feed dealer will try to mention his customers' names and accomplishments as often as he can in direct mail, in newspaper advertising and on bulletin board posters. It's good business to do so, because the customer who is satisfied is really your salesman. It is he who carries the fertilizer story you have sold him on—to others. He is you talking. He is the fellow who is saying: "Look, boys, this is what I did with that good fertilizer Pete Jones sold me." You get your name mentioned by a customer to many other prospective customers. And to get your name mentioned in this manner is often more effective from an educational and sales standpoint, than to have you say the same thing in person or in writing.

There are many of the average dealer's customers who have accomplished splendid crop results by having their soil tested, by using the recommended amount of fertilizer supplied by their local fertilizer deal-

er. These satisfied customers have something to "crow about." Why not give them an opportunity to get this satisfaction at your expense? Their contribution to your good will and your advertising program will be very valuable to you.

Many of these customers will allow you to take pictures of them and their crops for advertising purpose. You can publish a testimonial type ad, or a case history type if you wish. And as an added gesture of good will, you can give the customer 10 or 15 copies of the newspaper containing that ad—so that he can mail copies to his relatives near and far. When you do this for him, he will not forget and you, too, will benefit.

This is not to say that a fertilizer dealer can do this type of advertising and no other. But almost any fertilizer dealer can use 20 or more such case history ads during the year. They will add a personal touch, variety and more effectiveness to his ad program.

Have you a couple of customers who buy fertilizer in considerable amounts for fall fertilization? If so, dealers can get their stories, their pictures and their experiences and publish this material. It will help the dealer sell just as many farmers—perhaps more—on the fall fertilization idea than if he used "straight promotional ad copy."

People and what they do are of great interest in a community. This personal interest overflows the news columns and into the advertising. Any ad which contains reference to a customer or local firm is read quite eagerly. The wise fertilizer dealer will cash in on this appeal.

If John Jones buys more fertilizer per year than any other customer, a picture of your spreader putting fertilizer on Jones' farm will be well received in the local newspaper. Many customers will see it and some may be stimulated to buy fertilizer.

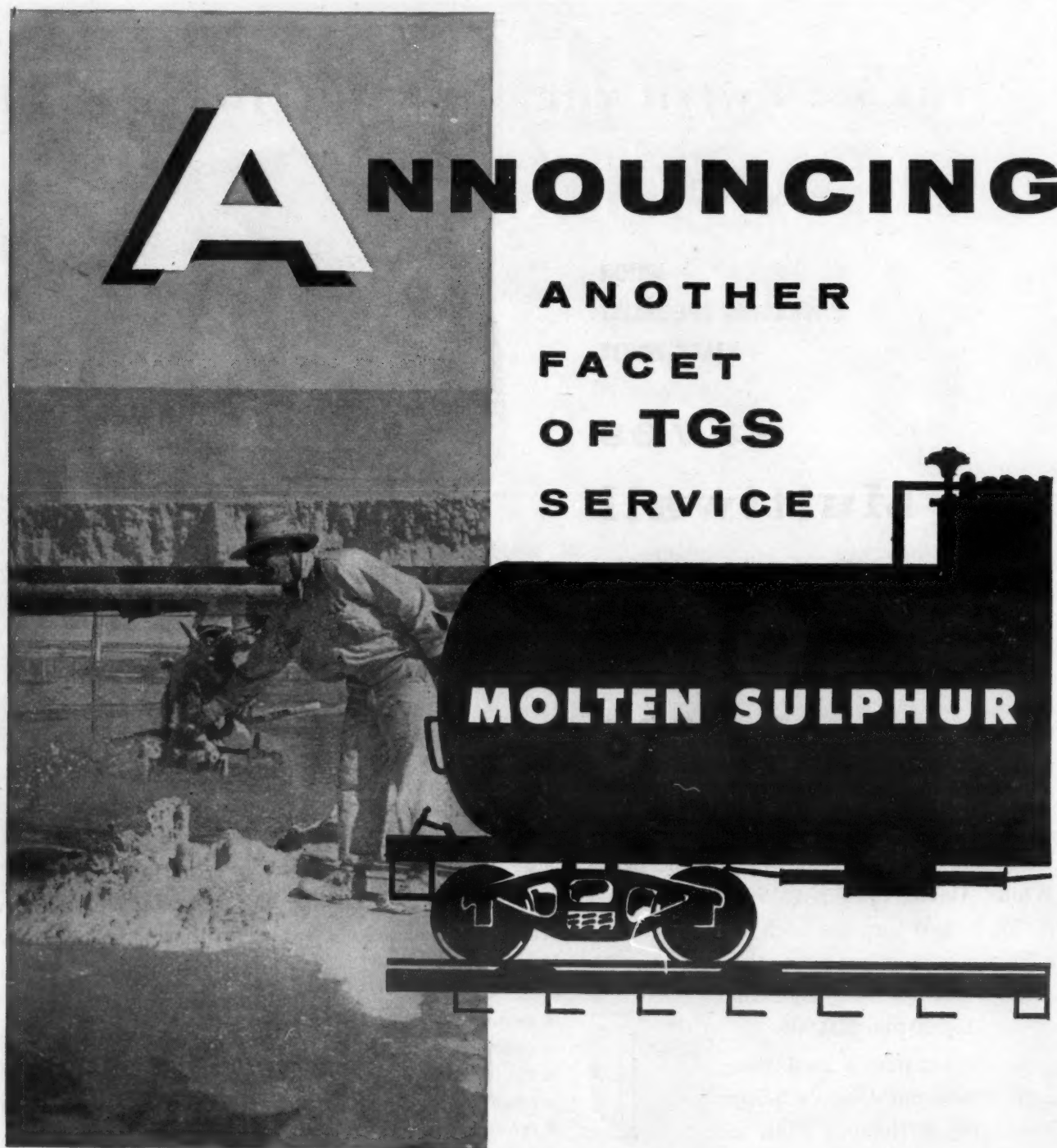
One fertilizer dealer states that he tripled his volume when he began showing pictures on TV of his fertilizer spreader in action on farm fields. The sight of a truck spreading fertilizer was something that urged farmers to buy.

A picture of a farmer who uses your fertilizer, or one of a truck spreading on his farm, or one of the farmer standing in his tall corn will be appreciated also as a personal gift. He'll prize it. He'll show it to the minister when he calls; he'll show it to his city cousins, and he'll show it to other farmers who come to visit and chat. Yes, the customer can sell fertilizer for a dealer.

Does the farmer know how much fertilizer he got from his dealer? Does he have records to show if he got \$3 back in crops or more for every \$1 he invested in fertilizer? If he doesn't have records on this, the dealer should help him to complete them. Then the farmer will have something to show his neighbors and relatives, something definite and understandable. He will become a salesman for good fertilizer, and then, of course, he is also a salesman for the dealer and his products. It takes a little extra promotional effort to make the farmer a salesman, but it can be done very quickly. All the dealer has to do is to figure out what makes him respond to the things which he can do successfully.

There are many satisfied fertilizer customers in practically every state who would speak a good word for fertilizer, who would tell about the fine results they have been obtained—if they were asked. How about asking them?

A lot of fertilizer dealers continue to look to manufacturers for some magic sales formula, the announcement of some new ingredient which will stimulate plant growth, hoping that such things will help sell more fertilizer. They will, when they come along. But the dealer must also use the customer and his willingness to speak up for him.



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Gloomicides

Dee Williams, former Cub catcher, silently watched one of his team mates jawing away at Umpire Charlie Berry. Naturally the player lost the argument and everybody started moving back to their positions. It was then that Dee turned to Berry.

"Charlie," he said quietly, "answer me one question: How do you get your square head in that round mask?"

★

"Look, dear, how picturesque. The Smiths are taking in a Yule Log."

"Yule log, my eye. That's Smith."

★

Jocko Munch, the famous minor league catcher, was in a terrible batting slump when his club booked an exhibition game with a nearby insane asylum. In one of the early innings, one of the inmates jumped out of the stands, set up near the first base line, made nine imaginary pitches, and returned to his seat. The fellow repeated his performance for three straight innings.

Jocko turned to one of the attendants and asked, "What's that guy think he's doing?"

The attendant explained, "He imagines he's a pitcher who's pitching a no-hit game."

"If I don't get a hit in this game," replied Jocko, "he'll have a catcher tomorrow."

★

Uncle: "You boys of today want too much money. Do you know what I was getting when I married your aunt?"

Nephew: "No, and I'll bet you didn't either."

★

Announcer: "And now for the news that happened during the commercial."

★

The director ranted. The pretty young actress remained as cold as a dish of ice cream. "Don't you understand your role?" he asked, almost beside himself. "You have a lover. You love him. You virtually adore him. But he shakes you off, lets you sit, and goes out with someone else. What would you do if that really happened to you?"

"I'd look for another man," replied the child of an objective century.

★

Came the day of their 25th wedding anniversary and the man of the house started out to do his work in the fields as usual. "John," his wife called. "Don't you know what day this is?"

"Yes, indeed I do," said John, smoothly.

"Well, how are we going to celebrate it?" persisted his wife.

"Sure and I don't know, Maggie," said John, scratching his head in puzzlement. "How about two minutes of silence?"

★

"I want to get a corset for my wife."

"What bust?"

"Nuthin. It just wore out."

★

"What makes you think you are qualified for a position in the diplomatic corps?"

"Well," answered the applicant, modestly, "I've been married 20 years and my wife still thinks I have a sick friend."

★

A Maine man reached his 100th birthday. A wise-cracking youth congratulated him and said, "Do you think you'll make another hundred?"

"Well," said the centenarian, "I'm a lot stronger than I was 100 years ago."

Ohio Farmer Tells Why He Opposes U.S. Control

CLEVELAND—Dr. P. Scott Whiteleather's running feud with the federal government over wheat controls was aired by the Columbiana County physician-farmer recently before the Cleveland Farmers Club, Cleveland. Dr. Whiteleather, president of the Independent Farmers of Ohio, told the city farmers that his belief in free enterprise would not permit him to submit willingly to crop restrictions imposed on his 150-acre farm.

"If I didn't feel that way my car wouldn't be in hock and my farm in bondage," Dr. Whiteleather said. "I could afford to give up farming as well as anybody here. I could walk away from my farm, but not from my convictions."

For failure to pay two penalties assessed against him for overplanting his wheat quotas, Dr. Whiteleather's car was seized by the government and

is in the custody here of U.S. Marshal Albert J. Jacobs. It was being advertised for public sale at 10 a.m. May 19. The owner asserted he would not redeem the vehicle.

Dr. Whiteleather charged that "socialistic" policies written into the Agricultural Administration Act of 1938 constituted "the darkest pages in American history." He complained wryly that "scalawags" on the county committee that levied fines against him included neighbors for whom he had answered midnight calls involving "gall bladders and babies."

Appearing with him was John R. Donaldson of New London, Ohio, secretary of the Associated Farmers of Huron County, whose fight to declare the wheat marketing act unconstitutional is in the Circuit Court of Appeals in Cincinnati.

Ted H. Wilkinson, program chairman, an insurance executive and Summit County cattleman, told the club that only five farmers in his

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county had large enough wheat quotas to qualify them to vote in the 1957 wheat referendum "and they voted against it."

Inorganic Production Shows Monthly Gain

WASHINGTON—Production of inorganic chemicals during March showed an increase over the February output levels. Production of synthetic anhydrous ammonia in March totaled 339,015 short tons, compared with 286,734 in February. March output of ammonium nitrate, original solution, amounted to 240,785 short tons, up from 203,468 in February.

Production of acid was on the upswing—nitric gained from 213,289 short tons in February to 245,543 in March, phosphoric from 135,140 short tons in February to 155,192 in March and sulfuric from 1,214,072 short tons in February to 1,363,696 short tons in March.

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Complaints Against 'Sawdust Sellers' on Upswing in Arkansas

By LEWIS BAREFIELD*

More complaints against so-called "fertilizer" peddlers have been received by the Plant Board recently, as has been the case for the past four or five years. Despite very earnest efforts to stop these hucksters, so far no buyer has been willing to go to court and get them stopped.

These peddlers follow a pattern in their sales technique. Usually they approach their prospective customer by telling him that they have sold someone in the neighborhood, or to several prominent persons in town or community and, of course, to the buyer's complete satisfaction.

*The above article is reprinted from the current issue of Arkansas State Plant Board News.

The material being sold in the Little Rock area recently is nothing more than partly burned sawdust. In the past, such products as gin waste (flu-bran) and burned rice hulls have been sold. These products have been represented to be (according to the buyers) rich fertilizer and cottonseed hull mixes, peat moss, and rich dirt.

Usually these products are wet when the customer inspects them and may have the appearance of soil or similar products. Of course, wet sawdust, or gin waste, is deceptive to the person who has had little experience with these products.

The price received for the so-called fertilizer depends upon how much bargaining power the customer has.

It is reported that some of the sawdust represented as fertilizer was bought for as much as \$9 for about two small wheelbarrow loads. Others have bought for as little as \$7 per pick-up truck load.

Considering that sawdust can usually be purchased for the cost of hauling, these prices make a rather handsome profit for the huckster.

Neither the plant board nor the prosecuting attorney's office is opposed to the sale of sawdust as such, but the fraud, as noted here, should certainly be stopped. At this time it appears that little can be done to stop the activities of such fraudulent peddlers unless someone who buys these materials will prefer charges against them through their prosecuting attorney.

NICHOLAS G. PENNIMAN DIES

BALTIMORE—Nicholas G. Penniman, retired president of the Acme Guano Co., died recently.

Soil Bank Takes 27.6 Million Acres Out of Production

WASHINGTON—Cropland taken out of production through the soil bank, both the acreage reserve and the conservation reserve programs, totals slightly over 27.6 million acres for 1958, the U.S. Department of Agriculture reported last week.

Of this total, 21.2 million acres were put in the soil bank this year—slightly over 17.1 million "allotment" acres of basic crops in the acreage reserve and somewhat over 4 million new acres of general cropland in the conservation reserve. There already were about 6.4 million acres in the conservation reserve from the 1956 and 1957 programs.

The signup by crops includes 5,290,462 acres of wheat, 6,654,576 acres of corn, 4,932,703 acres of cotton, 174,500 acres of rice and 110,789 acres of tobacco.

Fire Flares Twice At Fertilizer Plant

TOLEDO—Fire broke out twice in the same building of the F. S. Royster Guano Co. here within two hours early May 28. District Fire Chief Roy Davis said he suspected arson.

Firemen were called at 2 a.m. when a watchman discovered bags used to package fertilizer ablaze. Another alarm was sounded about 3:45 a.m. after the watchman chased a man from the building and then found the same pile of bags on fire. The watchman said he fired a warning shot at the fleeing man. Mr. Davis estimated damage at \$250.

Hot Weather Forces Replanting in Utah

SALT LAKE CITY—Unusually hot May weather has forced some Utah farmers to plow up and replant fields of sugar beets and corn because of lack of enough moisture in the soil to germinate the seed.

A heat wave during the latter part of the month sent temperatures 10 to 15° above normal.

Although detrimental to some crops, the unseasonable weather proved beneficial to other crops such as alfalfa and tomatoes. County agents agreed that the benefits seemed to outweigh the damage.

Darrell Stokes, Davis County agent, reported: "We have had some farmers plow up their sugar beets and corn and plant over again. There wasn't enough moisture to germinate the seed. The farmers planted knowing they were short on moisture. They hoped that a storm would come up, but it didn't. Everything else seems to be doing fine. This weather is ideal for alfalfa."

In Salt Lake County, Agent Joseph Parrish reported that failure of seed to germinate was limited to isolated plants.

"We had some good rain followed by a crusting of the surface of the ground. When we correct that we are okay," he commented.

Stockholders Approve Hooker-Shea Consolidation

NIAGARA FALLS, N.Y.—Shareholders of Hooker Electrochemical Co., at Niagara Falls, N.Y., and Shea Chemical Corp. at Boston, Mass., have voted overwhelmingly in separate meetings to consolidate Shea Chemical with and into Hooker and at the same time adopt the name Hooker Chemical Corp. for the consolidated continuing company.

KANSAS STAFF ADDITION

MANHATTAN, KANSAS—Paul C. Duffield has been appointed assistant professor in the department of botany and plant pathology at Kansas State College. He will be in charge of research in forage crop diseases and will do some teaching.

For uniformly conditioned mixed goods, use

Du Pont UAL-S

Here's how it works . . .

New Du Pont UAL-S permits you to take advantage of the well-known conditioning effect of sulfates in fertilizers. A small amount of ammonium sulfate added in a finely dispersed form as in UAL-S is equivalent to a much larger amount added dry to the mixture . . . ammonium sulfate means better, more uniform conditioning. All of your fertilizers will benefit from nitrogen derived from UAL-S, because it combines two efficient forms of nitrogen with ammonium sulfate to provide added sulfur . . . an essential plant nutrient with recognized agronomic value.

Regular mixtures cure well with UAL-S,

are free-flowing and resist caking. In granular mixtures, UAL-S aids in producing good yields of hard, round, firm granules that store and distribute well. UAL-S is non-corrosive to fertilizer manufacturing equipment, including mild steel and aluminum, and it's safe—handles at moderate pressure, and there's no danger of flash fires.

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Dealer Responsibilities and Problems

By James A. Potts

Manager, Taylor-Evans, Inc., Amarillo, Texas

EDITOR'S NOTE: As a supplier of farm and garden chemicals, James A. Potts, manager of Taylor-Evans, Inc., Amarillo, Texas, has gained extensive experience in meeting and attempting to solve problems common to this industry. This article details Mr. Potts' opinions on what the dealers' responsibilities and problems are and how they might be solved. The article is adapted from a talk given by Mr. Potts at the fifth annual Texas Tech Agricultural Chemical Conference.

Summarized here are my opinions on what dealer responsibilities and problems are most important today.

Dealer's service to his community: When the dealer's business becomes headquarters in the community for the products he sells, then he has gained the respect and confidence of the people that trade with him day by day.

Honesty: A dealer may miss a few sales at the point of purchase but where one is missed, in the future the honest dealer will gain manyfold. Remember, volume is gained through repeat customers, not the first and last customers.

Handling quality products: Confidence in the product by the dealer himself, and having the customer in mind each minute of the sale is of highest importance. It is the responsibility of the dealer to handle reputable products, manufactured by companies in which the dealer has the greatest confidence. The labels on products must be clear and concise. If the farm chemical is poisonous, never pour it into a container such as a soft drink bottle, fruit jar or similar container. It is extremely dangerous and should never be practiced.

It is the dealer's responsibility to his customers to protect not only him, but his family, children and friends.

Trained sales people: It is the dealer's responsibility to have trained salesmen or saleswomen represent his firm and to teach them to be as conscious of the responsibilities mentioned above as the dealer himself. Good sales people never cost an organization one thin cent. They pay the owner dividends over and over again. The better the salesman, the more inexpensive he is to the firm.

Improved merchandising practices: It is the dealer's responsibility to work cooperatively with his state college, agricultural experiment station, agricultural teacher and county agent. It is his responsibility to maintain a clean and attractive place of business at all times. Why? Look at what the supermarkets have done. They have made a practice of keeping very attractive and clean places of business, thus making it pleasant and comfortable for the shopper. They have out-merchandised the farm supply dealer.

Supermarkets have carried on a balanced, progressive advertising plan where one or two percent of their total sales have gone into advertising. How much have you, as a farm chemical and farm supply dealer, allotted to advertise what you are doing to inform the prospects what products you have for their service and comfort? You may have the most inexpensive and best-quality product in

town, but if no one realizes it, you have gained no sales.

Have you ever heard of a business going broke because it spent too much money on advertising? No, you haven't. But nine out of 10 bankruptcies involve cases where the firm did not advertise.

Stocking Merchandise: It is the dealer's responsibility to stock the merchandise needed to render a service to his community. It is also his responsibility, even though it might seem minor, to departmentalize the store or chemical business, in order to make it easy for himself and his

customer to choose the product needed.

A few suggestions are: Arrange the displays whereby household, livestock, garden, agricultural and industrial chemicals will be separated. It is up to us, as dealers, to have the responsibility of having our merchandise marked at a fair price. Normally speaking, a farmer or his wife is not looking for a bargain to kill the aphids on his roses or the bollworm in his cotton. He is looking for a bollworm control and price is secondary as long as it is reasonable.

(Turn to JAMES A. POTTS, page 23)

SHOP TALK



OVER THE COUNTER

By Emmet J. Hoffman
CropLife Marketing Editor

Selling fertilizer often becomes a "survival of the fittest" when prices are determined by the "going rate" instead of the cost of doing business plus a fair profit, or if the credit situation gets out of hand. In such cases, no one really benefits and many dealers especially suffer hardships.

Dealers who refuse to be misled into unbusinesslike practices are to be commended. A good example is the Davis Farm Store of Colorado City, Texas. Despite slower sales in many parts of the Southwest, the firm expects 1958 to be the best year ever.

"We don't base our prices to beat other prices," says assistant manager R. J. Hoback. "We are trying to help the farmer and ourselves at the same time and we can't stay in business selling at cost."

The store has built a profitable trade with both irrigation and dryland farmers on these business principles.

1. There has been a campaign to get fertilizer used on dryland cotton. Mr. Hoback says the main objection was because farmers believed fertilized fields would require more water.

"We do have some dry years here," he says, "but field tests have shown that fertilizer will increase yields any year except during extreme drought. And then some of it will still be available for the following crop."

This spring many farmers applied 100 lb. of mixed fertilizer per acre, while irrigation farmers put on from 200 to 300 lb. Each group is planning to side-dress with nitrogen later in the season.

2. Giving service to farmers in the form of advice, information and field supervision. Mr. Hoback says that some dealers have sold fertilizer without knowing what it will do or how much to apply.

3. Holding down credit. Some firms sell fertilizer on long terms, with the farmer agreeing to pay at the end of the harvest season. Some of this is never paid and the dealers come out in the red.

"I don't believe a farmer or anyone else appreciates this type of kindness," Mr. Hoback says. "We expect to be paid and not wait a half year for the money. If the farmer really wants fertilizer, he will be able to borrow the money from the regular lending agencies."

4. The dealer must be sold on a

(Turn to OVER THE COUNTER, page 18)

Thrips, Aphids Active In West Texas Cotton

COLORADO CITY, TEXAS—Thrips and aphids are getting start on West Texas cotton planted in April, according to a survey of county agricultural agents. Here in Mitchell County both types of insects are building up to a heavy infestation in some communities, says county agent Jack Burkhalter.

Farther west in Howard, Martin and Dawson the same situation prevails, with farmers beginning to spray both by tractor-powered rigs and by airplanes. The agents are urging farmers to start early season control, pointing out that these tiny insects not only strip the cotton plants of the bottom fruiting, but by taking off the first squares to mature they will delay maturity by a two to three weeks period.

Alabama Tonnage

MONTGOMERY, ALA.—April fertilizer sales in Alabama totaled 263,953 tons, compared with 292,963 tons in April, 1957, according to a report from A. W. Todd, commissioner of agriculture. Sales for the first seven months (October-April) of this fiscal year amounted to 606,621 tons, a drop from 685,359 tons in a corresponding period a year earlier.

SOYBEAN PEST CONTROL

CLEMSON, S. C.—The solution of pest problems affecting soybean production, especially the control of the velvet bean caterpillar, has enabled soybean production to develop into a \$10 million industry in South Carolina, according to specialists in Clemson entomology and plant disease extension work.

Insect Control Activity Picks Up in Mid-South

MEMPHIS—Cutworm and thrip activity in the Arkansas and Mississippi delta during recent days has resulted in an increasing number of early season insect control programs by Mid-South cotton farmers.

Appearance of these cotton pests brought insecticide dealers their first orders of the year. Many farmers, who haven't been particularly interested in a full season insect control program, now indicate they will maintain a regular application schedule throughout the season. Meanwhile, extension officials report the first appearance of boll weevils in south Mississippi.

Crop conditions in the Mid-South were summed up pretty well by an Arkansas farm supply dealer when he said, "There's not much wrong that a good rain wouldn't cure."

Thus farmers who have waited for weeks to get into wet fields to plant cotton and other crops, now are looking to the skies for enough moisture to germinate seed. Milton Shelby of Delta Farmers Supply Co., Marion, Ark., said in early June that in his area in the eastern part of the state, about 50% of the cotton is up to a good stand and 10 to 15% up to a partial stand. Some 40% is in the ground but needs rain for germination.

Elsewhere in the Mid-South, hot clear weather enabled farmers to complete planting of their cotton and to begin widespread cultivation. Extension officials in Arkansas, Mississippi, Missouri and Tennessee reported that much progress was made in planting corn, soybeans, rice and small grains.

Mr. Shelby reported that farmers are sticking with cotton until the last minute with the hope that rains will bring the cotton up to a stand. He said the money situation has been tight in his area and that farmers have difficulty with financing when they shift from cotton.

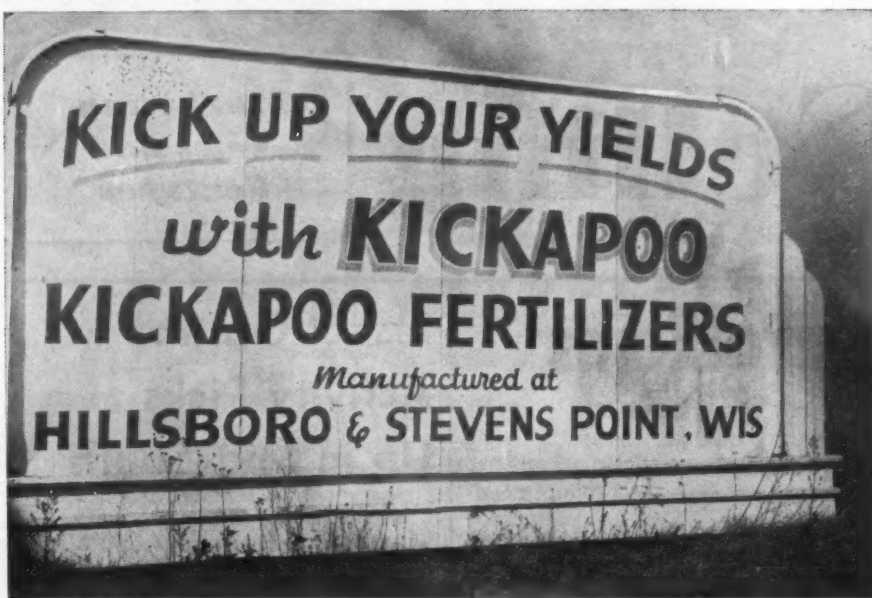
Not much interest was shown in soil fumigants this season, Mr. Shelby said. Use of pre-emergence herbicides has increased, but the lack of rain to activate them has slowed sales. His volume of herbicides has doubled this year, however.

In West Memphis, Arkansas, Lewis Brewer, who operates the Farmers' Aero Service, said that with the late cotton crop aerial application has been very slow so far this season. However, he has used toxaphene and dieldrin in aerial applications against cutworms.

Officials of the Mid-South Supply Assn., serving farmers in east Arkansas, north Mississippi and west Tennessee, said that customers this season haven't made many calls for soil fumigants. On the other hand, interest has picked up in early season insect control for cotton.

Arkansas Sales

LITTLE ROCK—Arkansas fertilizer shipments during April totaled 89,620 tons, a gain over 64,536 in April, 1957, the Arkansas State Plant Board reports. The sales for the first 10 months (July-April) of this fiscal year totaled 228,292 tons, down from 245,350 tons in a corresponding period a year earlier.



SIGN WITH A KICK—Thousands of farmers travel the highways nowadays in automobiles and trucks and that is one reason why many regional fertilizer firms like roadside advertising to catch the attention of local farmers. Kickapoo Fertilizers, Hillsboro and Stevens Point, Wis., use several signs like the above within a 75-mile radius of the two cities and find that it helps build business.

New Parasiticide Shows Promise in Sheep Pest Control

WASHINGTON — Dimethoate, a new experimental parasiticide, has demonstrated marked efficiency in controlling nasal botflies that attack sheep, according to U.S. Department of Agriculture researchers. The chemical is not yet available to livestock raisers, and its general use has not been recommended.

Injected into the muscles of sheep at a rate of 25 milligrams per kilogram of the animal's weight, this systemic organophosphate compound produced an overall kill of 97% of nose bots (*Oestrus ovis*) in USDA tests.

Thirty-one out of 60 infested sheep were treated with the new chemical by H. O. Peterson, parasitologist of USDA's Animal Disease and Parasite Research Division, who is stationed at Albuquerque, N.M. Dr. Peterson found that a single injection of dimethoate killed 98% of grubs in the first instar stage, 97% of second instars, and 92% of the third instar grubs.

No toxicity from the chemical occurred in any of the treated animals. Selection of the dosage was made after six preliminary experiments employing various dosages and means of administration.

Dimethoate's effectiveness against botfly grubs in the second and third instar stages is especially notable, USDA scientists say. Dimethoate was discovered by industry chemists and was originally intended for use against cattle grubs.

Arkansas to Expand Gibberellic Research

FAYETTEVILLE, ARK. — To broaden specific knowledge about gibberellins and to speed up practical application of their use, investigators at the University of Arkansas' Agricultural Experiment Station are expanding research work with gibberellic acid.

Grants from two chemical companies will supplement the present program at the Arkansas station, says Dr. D. A. Hinkle, head of the agronomy department. Grants of \$1,200 from Commercial Solvents Corp. and \$1,000 from Abbott Laboratories have been accepted.

Researchers will use the money from CSC to treat cotton plants with gibberellins to determine effects produced in boll set, yield increase, and fiber length, strength and fineness of cotton, according to the agreement. With the Abbott grant, researchers will study the reaction of seeds and plants treated with gibberellic acid to counteract low temperature, insufficient oxygen and other factors affecting germination, Dr. Hinkle remarked.

Ultimately, investigators hope to harness the stimulant to control growth and ripening date of crops such as cotton, rice and soybeans. Arkansas researchers have conducted experiments with gibberellins during the past year, but say that they have much to learn about the possibilities and limitations.

JOINS ZONOLITE

CHICAGO — John F. McCormick has been named plant operations manager of the expanded products division of Zonolite Co. The firm mines and processes vermiculite.

What's Been Happening?

This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on the regional circulation plan up to date on industry happenings.

Plant nutrient supplies for 1957-58 fiscal year are adequate, but still down 2% from the past fiscal year, the U.S. Department of Agriculture reported in its annual "Fertilizer Situation" compilation distributed early in June. An estimated 6,506,000 tons of nitrogen, phosphate and potash are available for domestic fertilizer purposes in the fiscal year ending June 30, 1958, the report said.

The National Cotton Council forecast a critical situation for the cotton industry unless changes are made in existing federal farm legislation during the current session of Congress. A spokesman said that rules must be changed to allow production of adequate supplies of cotton at competitive prices to compete in world markets.

Federal Land Banks reported an unusual level of farm loans to enable farmers to purchase new equipment. This fact is regarded as being a good omen for the fertilizer and pesticide industries, since the investment in more efficient machines must be matched by greater productivity from the soil.

A bill to remove the 3% federal tax on rail freight was not given a very long chance of success in the Senate early in June. The bill, introduced by Sen. George Smathers (D. Fla.) had formidable opposition in the administration's reluctance to grant any reduction in taxes in 1958.

Maurice H. Lockwood resigned his position of vice president of International Minerals & Chemical Corp., in charge of the Plant Food Div. John D. Zigler became general manager of the division.

The Senate Interstate Commerce Committee approved and sent to the Senate a floor bill which would have a marked effect on the use of private carriers engaged in hauling agricultural commodities in return haul loads in interstate commerce. The amendment will be fought by the association of private carriers, but has the support of railroads and trucking associations.

The National Cotton Council advocated a program for cotton that would give individual farmers a choice between higher acreage and a lower price or lower acreage and a higher price. The program would compensate for the "large margin of error which is inherent in forecasting production, consumption and exports a year or more ahead," the Council said.

Work at the USDA agricultural research center at Beltsville, Md., may uncover information about regulating the kind and amount of fertilizer to use for maximum effect on insects and mites as well as for a maximum crop. Early studies show possibilities in this direction.

Cooperative Farm Chemicals Assn. announced plans for major additions to its nitrogen plant at Lawrence, Kansas. Cost of the expansion was estimated at \$5 million.

Production of superphosphate and other phosphatic fertilizers from July to March, was up 5% over the same period of the previous year. The Bureau of the Census reported that tonnage for this nine-month period was 1,820,223 tons against a tally of 1,740,440 tons the previous year.

Congress was preparing legislation to provide funds for research on the effects of pesticides on wildlife. Government officials hailed the move as being one of the most constructive to come about in years, in bridging the gap between the USDA and the Department of Interior caused by misunderstanding in seeking ways to gain common ends.

Two new pesticide plants were completed in May. One, operated by Arizona Fertilizers, Inc., Phoenix, is located at Willcox, Ariz.; the other, by General Chemical Division, Allied Chemical Corp., is in Minneapolis.

Fertilizer prices are up about 1% at the retail level this year, according to the U.S. Department of Agriculture. The 1% represented that much of a gain over the retail prices of last year.

Mid-South fertilizer sales were running below those of the previous year mostly because of foul weather which plagued agriculture earlier in the season. Some manufacturers and distributors reported that sales were as much as 30% behind last year, but deliveries were picking up well.

A report by the U.S. Department of Agriculture indicated that grains stored on farms in a number of midwestern states totaled 2.5 billion bu., and that further expansion of farm storage facilities will be needed. This situation was seen by Croplife's Washington correspondent, John Cipperly, as presenting an opportunity to the pesticide industry for sales of protective products for the stored materials.

Dr. William P. Boyer was named head of the chemical division of Virginia-Carolina Chemical Corp., Richmond.

North Carolina's state board of agriculture, made three changes in its official fertilizer grades. The grade 0-13-36 replaced 0-20-40, and 13-13-13 was deleted. A new grade, 4-8-12 was added for use on tobacco.

That an ample supply of pesticidal materials will be available for the current growing season was indicated by H. H. Shepard, USDA, in the annual "Pesticide Situation" report published in Croplife. Requirements for the year were estimated as follows for some of the widely-used pesticidal materials: DDT, 65 million lb.; Aldrin, chlordane, dieldrin, endrin, heptachlor, and toxaphene, combined, 45 million lb.; BHC, 8 million lb.; calcium arsenate, 15 million; copper sulfate, 30 million; 2,4-D (acid equivalent), 25 million; lead arsenate, 10 million; pyrethrum, 7 million; rotenone, 6 million; and 2,4,5-T, 2.5 million lb.

An infestation of desert locust, or band-winged grasshoppers, in Arizona was brought under control after a ten-day cooperative federal-state spraying effort over some 140,000 acres of desert land adjacent to irrigated crop lands. Several thousand acres of cotton and vegetable crops were damaged by the insects, but the control measures are credited with saving the major portion of crops.

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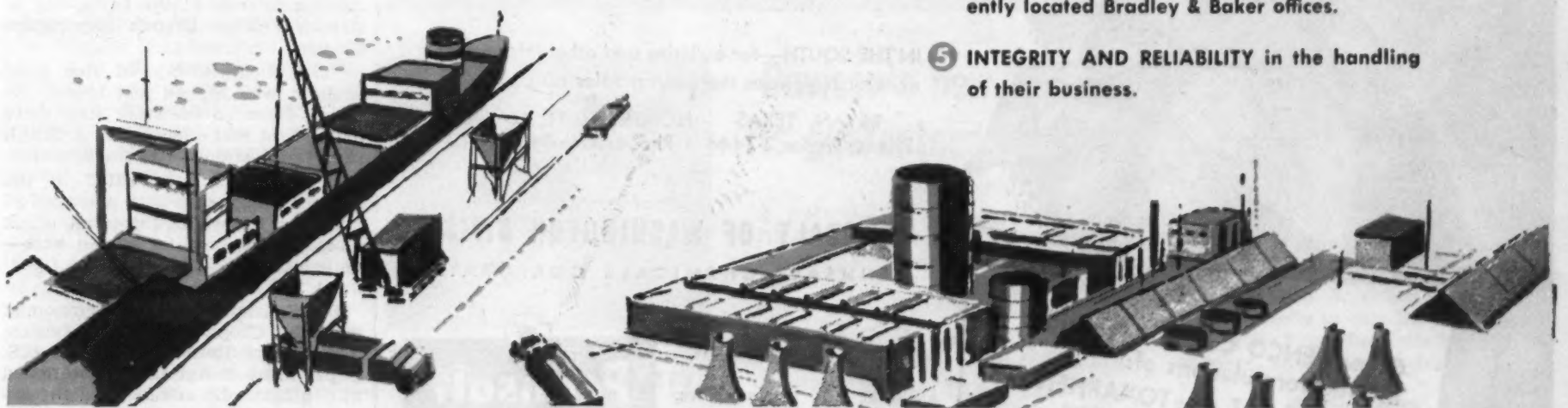
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FARM SERVICE DATA

Extension Station Reports

For top production and quality grazing and hay from Coastal Bermuda, Georgia farmers should apply nitrogen throughout the spring and summer, according to Ralph Johnson, agronomist-project leader, Agricultural Extension Service, University of Georgia College of Agriculture.

Mr. Johnson points out that Coastal Bermuda, a hybrid plant, is very efficient in the use of nitrogen. Two hundred pounds of nitrogen per acre produced seven tons of Coastal Bermuda hay per acre in a two-year test at the Coastal Plain Experiment Station near Tifton. This compared with

only 1.8 tons per acre where no nitrogen was used. The protein content of the grass in this test was increased from seven to more than 11%.

Good management of Coastal Bermuda involves keeping the grass grazed under six inches in height, Mr. Johnson declares. Hay should be cut when the Coastal is about 12 in. high. Four to five cuttings usually may be made each year, depending upon nitrogen applied and rainfall.

Mr. Johnson said that from 100 to 200 lb. of nitrogen per acre should be applied in split applications. The 100-lb. rate is for graz-

ing alone, he explains, while the 200 lb. rate is for grazing and hay.

Soil tests should be the basis for determining the amount of lime and mixed fertilizer to use, Mr. Johnson continues. General recommendations are 500 lb. of 4-12-12 per acre each year. In South Georgia, 0-10-20 or 5-10-15 may be substituted on low potash soils. The liming program should consist of meeting lime needs once every three to five years.

Studies conducted on the Texas Blackland Experiment Station in 1955 showed that nitrogen must be used to obtain maximum yields from either coastal or common Bermuda-grass.

Yields of coastal Bermuda ranged from 10,215 lb. of air-dry forage with no fertilizer to 16,215 lb. with 90 pounds of nitrogen. Yields of common Bermuda grass ranged from 6,285 pounds per acre with no fertilizer to 11,125 lb. with 90-90-0.

Yields of common and coastal were increased further by increas-

ing the nitrogen application from 90 to 135 lb. per acre. The protein content of common and coastal Bermuda forage was increased significantly at the May clipping, but not at the one in October, by adding 90 or 135 lb. of nitrogen per acre.

The phosphoric acid content of common and coastal Bermuda grass forage was significantly increased at both clippings by adding 45 or 90 lb. of P_2O_5 per acre.

★

Applications of boron increased yields of Early Runner and Dixie Runner peanuts grown on Blanton fine sand at the Main Experiment Station, University of Florida, Gainesville.

Using soil containers made from low-boron Army surplus jugs, Dr. Henry C. Harris and R. L. Gilman of the agronomy department made this significant discovery in the greenhouse.

Grades of both varieties were also greatly improved by applying boron. Peanuts without boron had a much higher percentage of hollow heart, a serious abnormality. The boron application practically eliminated this defect.

Boron has been tried experimentally in the field for years to improve peanut production, yet little or no effect has been reported on either yield or quality. Why is this the case when this element appeared to be so important in these greenhouse experiments?

The answer apparently lies in the fact that these experiments by Dr. Harris and Mr. Gilman were better controlled than field tests. Besides, some kinds of lime and fertilizer are known to contain boron. Dr. Harris says that since lime is usually applied to peanuts, it could be that response to lime and other materials is confounded with the effect of boron, which is present as an impurity.

In these greenhouse peanut tests, no difference could be detected in the peanuts with or without boron until about 10 days before harvest. Then the boron-deficient peanuts developed stubby terminal branching. Shells of peanuts without boron often had cracks.

Nut yields with boron increased almost 300% over the boron-starved peanuts.

Grade or value of peanuts is determined by the amount of sound plump seed. Without boron, there were about as many defective as good seeds. Boron almost eliminated the imperfection and more than doubled the percentage of good seed.

Boron is one of the minor elements often on the short side in Florida soils. Although it is called "minor," it plays a major role in plant growth.

★

FAYETTEVILLE, ARK.—Farmers can use CIPC, a chemical herbicide, to control barnyard grass in rice, according to tests at the University of Arkansas' Rice Branch Experiment Station.

"The chemical injured rice least when it was applied just before the plants emerged or while they were in the first leaf stage," Roy J. Smith reports in Arkansas Farm Research.

"Rice treated with CIPC in the first leaf stage of growth averaged 86 bu. an acre, while untreated check plots yielded only 34 bu. an acre—an increase of 52 bu. from the treatment," he asserts.

Dr. Smith is research agronomist with the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture, stationed at Stuttgart. He summarized the experiments this way:

"Minimum injury occurred when rice was drill-seeded 1 to 1½ in. deep. In some cases, the stand was substantially reduced when CIPC

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was applied to rice sown less than one inch deep.

"Maximum control of grass and minimum injury to rice were obtained by applying CIPC before the oldest grass was beyond the first leaf stage. At this time rice growth ranged from just below the soil surface to well-emerged. When grass becomes too large it is difficult to control. Since soil type and weather influence emergence time of rice and grass, it appears best to base the time of treatment on the growth stage of the grass rather than on that of the rice," Dr. Smith recommends.

"When rice was seeded 1 to 1½ in. deep, water management after herbicidal application was not found to be critical. However, to lessen the possibility of injury to rice, it may be advantageous to delay irrigation for 7 to 10 days after herbicidal treatment.

"When CIPC was applied at the correct stage of grass growth, six pounds an acre was the optimum rate from the standpoints of economy and performance," Dr. Smith said.

★

Deep placement of starter fertilizer reportedly increases corn yields, but insecticide-fertilizer mixtures used this way do not give full benefit from the insecticide, entomologist John Lilly, Iowa State College, states.

This means that farmers using the new deep-placement fertilizer attachment for row fertilizer should use other methods for applying soil insecticides for best results.

Mr. Lilly said that 1957 experiments where the new applicators were used to apply insecticide-fertilizer mixtures did not give the effect that farmers expect when insecticides are put on with the conventional split-boot equipment. The split-boot places both insecticide and fertilizer at each side and slightly above the seed.

The higher position of the insecticide is important, Mr. Lilly pointed out, probably because the insect-killing gas generated by aldrin or heptachlor naturally moves downward in soil. Placed below the seed, entomologists theorize, it moves away from the young corn roots rather than toward them. Thus it fails to protect. However, Mr. Lilly pointed out, broadcast applications of insecticide which are disked in or plowed under give excellent results.

If the new deep-placement fertilizer attachment is used, Mr. Lilly says, the farmer will need to apply aldrin or heptachlor separately. This can be done in any of three ways:

1. By broadcasting or spraying the insecticide on the field before planting, then disking it in promptly. Mr. Lilly says this costs a little more than placement with the fertilizer, but provides a carryover benefit in the following year.

2. By using one of the new granular insecticide applicators as an additional attachment to the planter at planting time. At least two makes are now on the market.

3. Some western Iowa farmers using contour listing have found it practical to spray the insecticide in liquid form with an attachment that delivers the spray in the lister furrow at planting time to control cutworms. Farmers in other areas say this planter-mounted spray equipment is inconvenient.

Agronomy experiments have been reported showing that placing the fertilizer lower than the seed and to one side sometimes may add 50% to the yield stimulation provided by row fertilizer. Fertilizer placed above and to both sides of the seed by the conventional split-boot attachment added 6-10 bu. to the acre yield. The deep-placement attachment added another 3-5 bu.

The use of soil insecticides, in extreme situations, has increased a normal 50-bushel-per-acre yield to 100 bushels. The amount of benefit varies

with the extent of the insect problem. There is a soil insect problem on many farms where it has been recognized, Mr. Lilly says.

★

An Ohio farm economist reports that fertilizer prices have increased only a small amount in the past 20 years, whereas the average cost of all other farm production items has risen nearly two and a half times.

Dr. Mervin Smith, head of Ohio State University's agricultural economics department, attributes fertilizer's favorable price situation to efficient manufacturing and distribution.

The price advantage for fertilizer is likely to continue, he points out.

Because of changes in farm costs, he says, "it is to the farmer's advantage to spend more for fertilizer and less for labor, land, machinery and other production costs."

Citing profitable opportunities for

fertilizer use in crop production, Dr. Smith says that an extra dollar spent on fertilizing corn can return as much as \$3.75 in increased value of the crop. He bases his statement on Ohio tests of several years ago.

★

It takes good soil management, good seed and plenty of fertilizer to boost corn yields over the 200-bu. mark.

That's what Lonza Reed and Liss Chafin Reed will tell you. These two Johnson County, Kentucky, farmers demonstrated it when they won top honors in the 1957 Kentucky Corn Derby.

Mr. Reed was the five-acre corn contest with a yield of 29.6 bu. per acre. Mr. Chafin was first in the one-acre contest with 206.9 bu.

Both these champions believe in adding fertilizer to corn, according to University of Kentucky agronomists.

Mr. Chafin applied 500 lb. of fer-

tilizer on his one-acre plot. Before planting he spread a half a load of manure on the plot. He planted a commercial hybrid variety.

He cultivated the corn crop twice, and he says there was, "too little rain during the growing season."

Mr. Reed reports his land was in grass in 1953 and 1954 and in corn in 1955.

He used 200 lb. per acre of 0-30-30 fertilizer, supplemented with five tons of poultry manure. Mr. Reed also planted a commercial hybrid. Before planting he added two tons of limestone per acre.

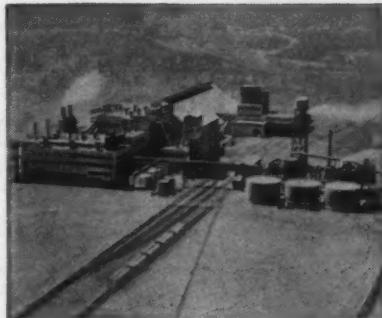
BIG SAVING

STILLWATER, OKLA.—Raymond Kays, Oklahoma State University horticulturist, estimates savings from chemical weed control in strawberries up to \$70 an acre in commercial plantings in Adair County, Oklahoma. The spraying completely eliminated all hand weeding in 33 acres of strawberries for the summer of 1957.



Big Dave announces...

A new triple super for ammoniation and granulation from Davison!



Never a delivery worry!

We've expanded our plant facilities to whittle down delivery schedules ... to ship Run-of-Pile Triple Super when, where and the way you want it. Try us. We deliver the goods!

Davison's new Run-of-Pile Triple Superphosphate is guaranteed to satisfy you on every count!

● **BETTER AMMONIATION RESULTS**—Because of its friable texture, this triple super has a high rate of ammoniation . . . absorbs more pounds of free ammonia per unit of P_2O_5 .

● **HIGH IN P_2O_5 CONTENT**—Constant high analysis . . . 46-48% A.P.A.

● **STORES BETTER**—This triple super is shipped in excellent mechanical condition. It is well cured, and milled and screened at time of shipment.

● **UNEXCELLED QUALITY**—This triple super is backed by Davison's more

than a century of experience in fertilizer formulation. It's guaranteed to satisfy you on every count.

● **IN STOCK AND READY TO GO**—We're ready to ship Davison Run-of-Pile Triple Superphosphate by rail, ship or barge. Write or call today!

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CHEMICAL COMPANY

Division of W. R. Grace & Co.
Baltimore 3, Maryland



OVER THE COUNTER

(Continued from page 13)

complete farm chemical program. The Davis Farm Store has a steady sale of fertilizers, insecticides and other chemicals throughout the growing season. The owners make a point to talk fertilizers with each customer. They explain the various kinds, what they will do and how to apply.

"Not many farmers come in and ask for fertilizer," says Mr. Hoback. "Most of our sales have been made by doing some talking. We don't insist, but merely explain what the soil needs and how a profit can be made by using certain plant nutrients. Once they start buying such products, it's much easier to sell insecticides, weed killers and other merchandise."

Foliage Production

New opportunities are arising for Florida dealers who have supplies for the production of foliage plants in

Florida. This production is now a 10 million-dollar-a-year industry, being five times the size it was in 1949. The entire country is the market, although more than half of the production is sold east of the Mississippi River.

These and other facts about this little-known industry were gathered and compiled in a study conducted by three economists with the Florida Agricultural Experiment Station. The men are Charles A. Nicholls and Drs. C. N. Smith and D. L. Brooke.

In 1957 the Florida foliage plant industry consisted of 180 commercial growers who operated 549 acres of land for growing plants in the open field, under lath or plastic cloth, and nearly 36 acres of greenhouse area. Most of these growers are in the south Florida counties of Broward, Palm Beach

and Dade, and the central counties of Lake, Orange and Seminole.

The industry began about 1925 by growers in central and southern areas who were producing Asparagus pulmosus and Boston ferns. As the market for ferns declined they turned to foliage plants as they fit nicely into their production and shipping facilities.

Philodendron cordatum, other Philodendrons and Sansevieria lauranti were among the first plants grown. Today they are still popular and Philodendron cordatum accounts for 34% of the industry's production. The other Philodendrons account for another 16.1% and Sansevieria lauranti makes up 9.7% of it.

The economists point out that foliage plant production is a highly specialized industry. Almost two-thirds of the growers interviewed either have spent their entire working lives growing foliage plants in Florida or had previously produced some other horticultural specialty. More than

half of them have entered the industry in the last 10 years.

There are 10 major market outlets for Florida foliage plants. Variety stores take 23% of the production and out-of-state greenhouse operators buy 28%. These men usually buy small plants which they grow to larger size before moving them into trade channels.

The northeastern states take 47% of the crop. The Midwest is second with 24% and the Southeast is third, taking 14%. The remainder goes to the West and Southwest.

Railway express handles nearly half of the shipments, followed by air freight, truck, parcel post and bus, in that order.

Nearly 1,300 persons were employed full time by the industry in 1957. Growers in central Florida hired 53% of the total.

So far the industry has not been faced with a glutted market.

Split Nitrogen Application May Boost Rice Yields

FAYETTEVILLE, ARK. — Rice farmers may benefit from late, split applications of nitrogen on continuously flooded fields, as indicated by tests at the University of Arkansas' Rice Branch Experiment Station near Stuttgart.

Researchers split applications of urea in 1956 by putting on 100 lb. an acre 45 days after seeding and applying another 100 lb. 85 days after seeding. This plot produced as much rice as a plot that received 300 lb. of urea applied all at once 45 days after seeding. In both tests nitrogen was applied on water in continuously flooded plots.

Results of a 1957 comparison show that a late, split application of 90 lb. of nitrogen produced higher yields than a single 90 lb. application of nitrogen on continuously flooded plots.

The researchers say these data suggest a probable advantage in applying part of the nitrogen fertilizer on rice near the early boot stage—70 to 85 days after seeding—on continuously flooded fields where the fertilizer must be topdressed on water. On drained fields, however, they got higher yields from a single application of nitrogen.

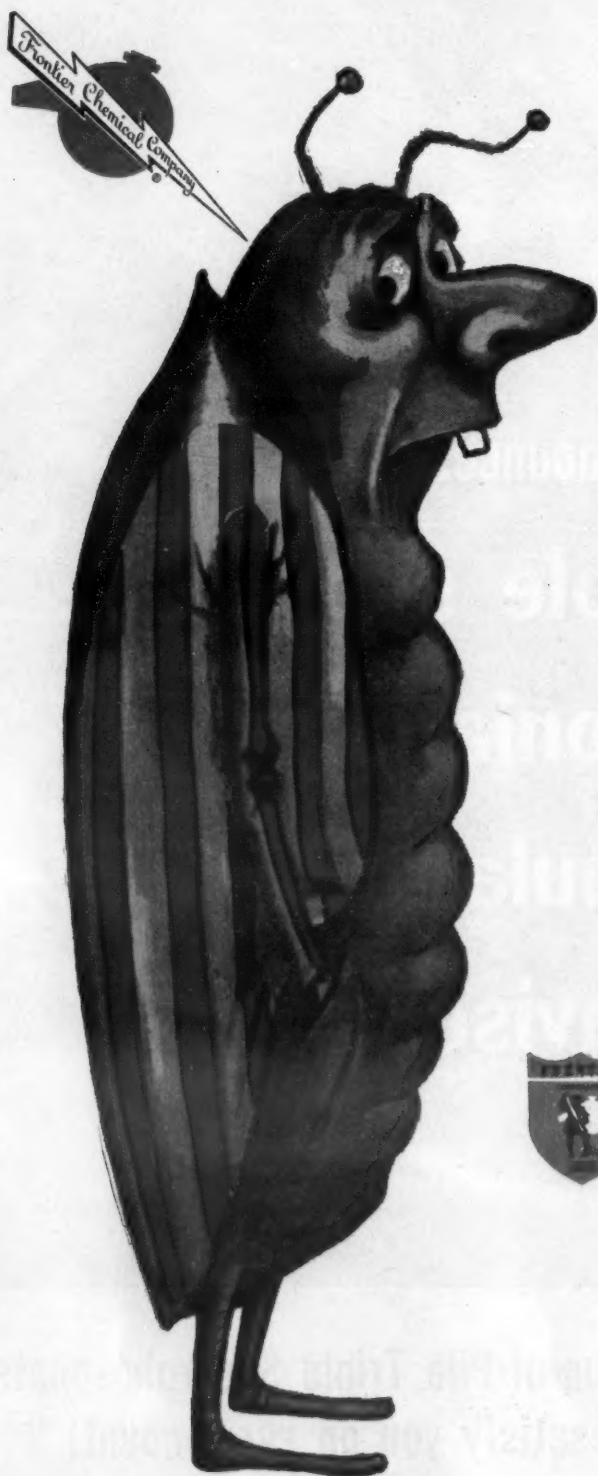
Co-op Fertilizer Volume Totals \$261 Million

WASHINGTON—More than 4,000 cooperatives did \$261 million in fertilizer net volume during fiscal 1956, the U.S. Department of Agriculture has reported. Net volume of sprays and dust, handled by 2,145 co-ops, was \$35 million. The total net volume of farm supplies handled during the fiscal year was slightly more than \$2 billion.

Net volume is the gross business after adjustment for duplication and it does not include business between cooperatives. Membership in cooperatives in fiscal 1956 was 7.7 million, a gain of about 1.7% over that of the previous year.

JOIN ARKANSAS STATION

FAYETTEVILLE, ARK. — New staff members of the Arkansas Agricultural Experiment Station have been announced by Lippert S. Ellis, dean and director of the University of Arkansas College of Agriculture and Home Economics. In plant pathology, Robert D. Riggs and George Earl Templeton have been named assistant professors. Mr. Riggs will work on plant diseases caused by parasitic nematodes. Mr. Templeton will do research on the control of diseases of cereal crops, replacing Dr. H. R. Rosen who will retire June 30. John D. Garrett became research assistant in agronomy on June 1 and will be concerned with research projects in soil fertility.



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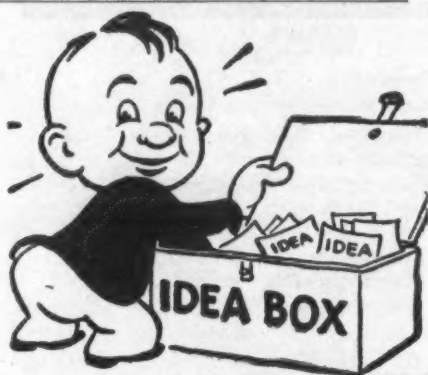
We Appreciate Your Business...

Good customers are the greatest asset of any company

Nitrogen Division, Allied Chemical, is proud of its customers in the fertilizer industry. The end of another fertilizer year is an appropriate time to say THANK YOU for purchasing your nitrogen requirements from us. We appreciate your business and will continue to do our best to deserve your confidence and your loyalty. ¶¶¶ We produce for you the most complete line of nitrogen products available for manufacturing fertilizers. You have many different ARCADIAN® Nitrogen Solutions from which to select those best suited to your ammoniation methods and equipment. ¶¶¶ Our plants at Hopewell, Virginia, South Point, Ohio, and Omaha, Nebraska, are conveniently located to serve many areas. We maintain the largest fleet of tank cars in the industry and do our utmost to keep our delivery facilities operating at top efficiency. When you need ammoniation advice or formulation assistance, you get it promptly without charge from our experienced technical service staff. The research that originated Nitrogen Solutions is constantly at work, developing new methods and materials to help you manufacture better fertilizers. ¶¶¶ Your sales are supported by powerful advertising to sell mixed fertilizers. Farm magazine advertisements, radio broadcasts and billboards, sponsored by Nitrogen Division, Allied Chemical, carry the mixed fertilizer story to millions of farmers. ¶¶¶ We look forward to a mutually pleasant and productive relationship with you during the years ahead. If you have suggestions as to how we can serve you better, let us hear from you. ¶¶¶ *At the Convention, we cordially invite you to visit the Nitrogen Division, Allied Chemical, suite at the Greenbrier and let us tell you in person how much we appreciate your business.*

NITROGEN DIVISION
40 Rector Street, New York 6, N. Y.





What's New...

In Products, Services, Literature

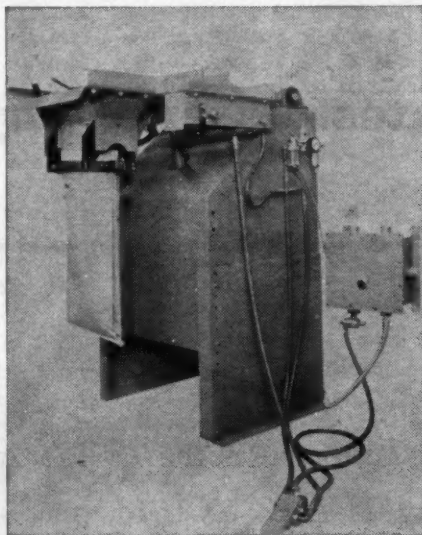
You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

No. 6759—Soil Treatment Movie

A new sound-and-color 16 mm. film which portrays how soil fumigation increases crop yields has been produced by the Stauffer Chemical Co. Prints are available on loan, and without charge, to interested agricultural groups. The 12-min. film depicts, in actual field scenes, modern methods of applying liquid soil fumigants such as "Vapam." It also includes a series of problem-and-solution sequences which show how soil fumigation has been used to control pink-root (onions), fusarium wilt (gladioli), oakroot fungus (fruit trees), nematodes (vegetable acreage) and weeds and soil pests in seed beds. One section of the movie portrays how trees planted in fumigated soil grow measurably faster than those set out in untreated soil. Details about securing the film may be obtained by checking No. 6759 on the coupon and mailing it to Croplife.

No. 7038—Automatic Bag Release

A new automatic bag release converts "G-73 Impackers" (or any bagging scale with a universal air-operated bag holder) to automatic operation, it has been announced by the Richardson Scale Co. The unit is de-



signed for textile and paper wall bags and can be supplied as an optional feature on new equipment or adapted to "Impackers" and scales already in use. For more information check No. 7038 on the coupon and mail it to this publication.

No. 6758—Pesticide Residue Booklet

Hazleton Laboratories has produced a booklet entitled, "Growers' Service Pesticide Residue Analysis" which discusses residue problems. Instruc-

tions and suggestions for using the firm's services are explained. Secure a copy of the booklet by checking No. 6758 on the coupon and mailing it to Croplife.

No. 6753—Preblender

Drawings and literature describing the "preblender-ammoniator-granulator" (patent pending) manufactured by Fertilizer Engineering & Equipment Co., Inc., are available. The company announces that "this new approach to pre-mixing of all materials before ammoniation yields quality product and reduces formation of chloride fumes." Secure further information by checking No. 6753 on the coupon and mailing it to Croplife.

No. 6754—Rubber-Lined Drums

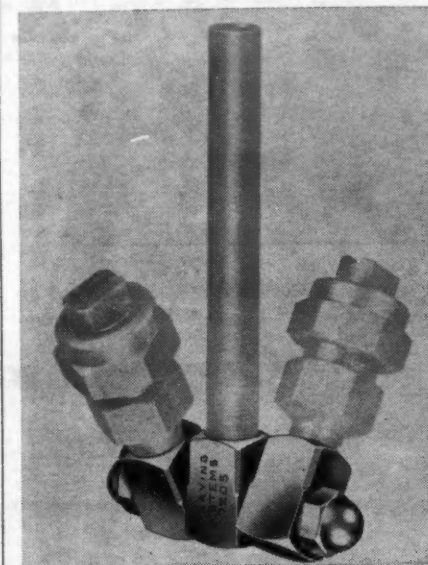
Specifications for the "series 800" and "series 801" rubber-lined drums of the Industrial Division, Gates Rubber Co., have been outlined in a new leaflet. Dimensions of the drums and other facts are given. Check No. 6754 on the coupon and mail it to secure the leaflet. Please print or type name and address.

No. 6755—Weed Control Product

A new brochure describing "Penco Penite-6X," a product used for control of weeds, trees, stumps, potato tops, aquatic weeds and termites, has been released by Pennsalt of Washington Division, Pennsalt Chemicals Corp. The brochure includes a description of the product, its composition and directions for using it for various controls. Secure the brochure by checking No. 6755 on the coupon and mailing it to Croplife.

No. 6751—Swivel Connectors

For setting spray nozzles to any desired angle in row crop spraying, the Spraying Systems Co. has introduced a new line of lightweight, double and single swivel connectors for mounting to drop pipe ends. Connector bodies are adjusted to any point in a 360° range and are held in position by lock nuts. They are supplied in two sizes as No. 7205 for use with



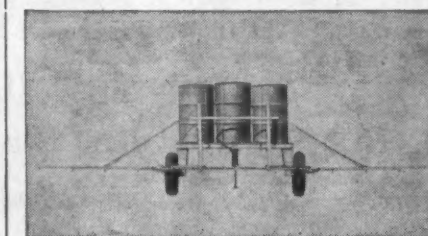
1/8 in. drop pipes and 1/8 in. inlet connection Tee Jet spray nozzles—and No. 7450 for use with 1/4 in. drop pipes and 1/4 in. inlet connection Tee Jet spray nozzles. For complete information check No. 6751 on the coupon and mail it to Croplife.

No. 6750—Drum Literature

Vulcan Containers Inc. has prepared two pamphlets describing specifications of drums recently added to its expanded product line. One of the pamphlets reviews the advantages of the 55-gal. tight head "Uni-Drums" which interlock because of slightly offset rolling hoops. The other pamphlet explains the uses and describes the accessories for open and tight head 55-gal. drums, the single and double blade 55-gal. agitator drums, the open and closed head 15-gal. drums, and 100- and 120-lb. capacity open head grease drums. Check No. 6750 on the coupon and mail it to secure details.

No. 6743—Trailer Sprayer

A new trailer sprayer combination for a wide range of farm spraying needs has been introduced by the F. E. Myers & Bro. Co. The spraying



combination includes a heavy-duty trailer (3TR), a boom (ET21) and a "Myers Du-All" pump (5706). The all-steel trailer comes equipped with six barrel hook rods and may be used with one, two or three 55-gal. drums. When fitted with 6:70-15 tires, the trailer has a ground clearance of approximately 30 in. Tread width can be varied from 60 to 80 in. To secure details check No. 6743 on the coupon and mail it to Croplife. Please print or type name and address.

No. 7019—Sewing Line Guide

Users of open-mouth multiwall bags have available a new sewing line guide developed by the Union Bag-Camp Paper Corp. Called "Sew-Straight," the guide is said to insure a constant, uniformly-sewn top clo-

Send me information on the items marked:

- | | |
|--|---|
| <input type="checkbox"/> No. 6741—Rotary Driers | <input type="checkbox"/> No. 6752—Bindweed Killer |
| <input type="checkbox"/> No. 6743—Trailer Sprayer | <input type="checkbox"/> No. 6753—Preblender |
| <input type="checkbox"/> No. 6744—Soil Fumigant | <input type="checkbox"/> No. 6754—Drums |
| <input type="checkbox"/> No. 6746—Packaging | <input type="checkbox"/> No. 6755—Brochure |
| <input type="checkbox"/> No. 6747—Herbicide | <input type="checkbox"/> No. 6758—Residue Booklet |
| <input type="checkbox"/> No. 6748—Materials Handling | <input type="checkbox"/> No. 6759—Movie |
| <input type="checkbox"/> No. 6749—Quackgrass Control | <input type="checkbox"/> No. 7010—Insect Calendar |
| <input type="checkbox"/> No. 6750—Drum Literature | <input type="checkbox"/> No. 7019—Sewing Guide |
| <input type="checkbox"/> No. 6751—Swivel Connectors | <input type="checkbox"/> No. 7038—Bag Release |

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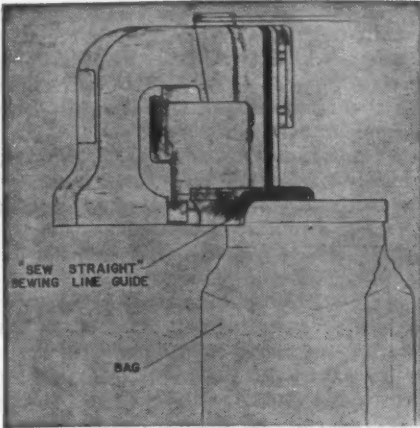
Minneapolis 1, Minn.

Also Available

The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

No. 6748—Booklet on Materials Handling

Under the title "7 Ways to Cut Costs," a booklet recently published by the Frank G. Hough Co., explains how material handling methods are developed through the versatility of a single machine. The booklet "demonstrates the utility value of interchangeable front end attachments on Payloader tractor-shovels," the company states. Action pictures demonstrate the material handling assignments that can be made to apply to seven attachments. Condensed specifications for two models are included. A free copy of the booklet is available by checking No. 6748 on the coupon and mailing it to Croplife.



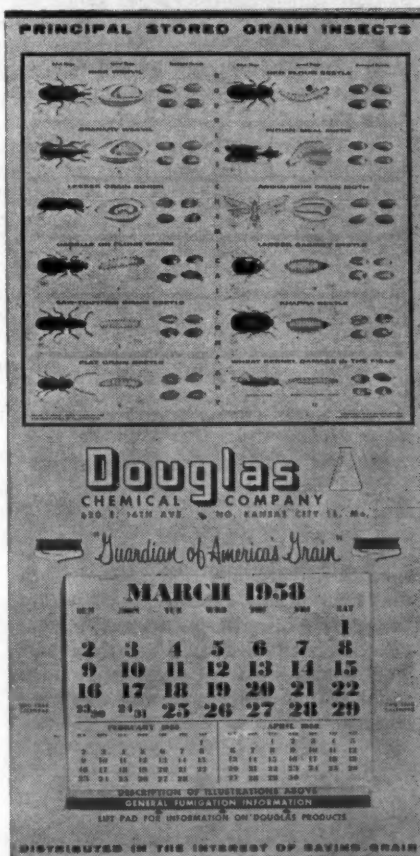
sure and improves the appearance of the package. Closure within one inch of the bag top is permitted. Check No. 7019 on the coupon and mail it to secure details. Please print or type name and address.

No. 6741—Rotary Driers, Coolers

Fertilizer Engineering & Equipment Co., Inc., has available drawings showing construction and operating features of its rotary driers and coolers. The drawings are in an 8-page bulletin which describes features of the units such as auxiliary controls and safety systems. Check No. 6741 on the coupon and mail it to Croplife to secure the bulletin.

No. 7010—Grain Insect Calendar

The Douglas Chemical Co. has prepared a full color two-year calendar with illustrations of 12 principal stored grain insects. The insects are



shown in their adult and larval stages and in actual size. Habits of the insects are also described. Check No. 7010 on the coupon to secure details.

No. 6746—Fertilizer Packaging

The use of a full overlap-flap die-cut box for fertilizers and other bulk-pack products is described in information released by the Hinde & Dauch Paper Co. The method has been found successful in packaging 25-lb. packages of fertilizer and it is said to prevent sift and provide a convenient carrying handle. Secure details by checking No. 6746 on the coupon and mail it to Croplife.

No. 6744—Soil Fumigant

Information about the use of "Mylone" soil fumigant which has been granted federal label acceptance by the U.S. Department of Agriculture

for pre-planting use on seed beds of certain vegetables is available. The manufacturer of the product is Union Carbide Chemicals Co., Division of Union Carbide Corp. The product formerly was available for use on vegetable seed beds only on an experimental basis. It is now commercially available to growers for pre-planting treatment of tomato, pepper, cabbage, egg plant and lettuce seed beds, the company states. Check No. 6744 on the coupon and mail it to Croplife to secure details.

No. 6752—Bindweed Killer

Bindweed, Canada thistle, trumpet vine and other broadleaved perennials can be eliminated for a year or longer by one spraying with a new chemical weed killer, "Tryben 200," states the Du Pont Co. The material is based on the dimethylamine salt of trichlorobenzoic acid (TBA) and contains 2 lb. acid equivalent per gallon. It is said to be effective through both

contact and residual action. The chemical is non-selective and is formulated as a liquid to be diluted with water for spray application. Check No. 6752 on the coupon and mail it to Croplife to secure details.

No. 6749—Quackgrass Control

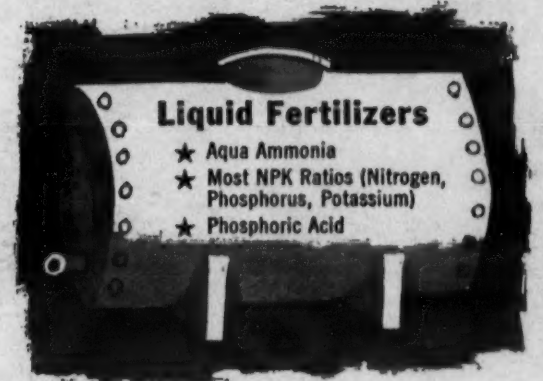
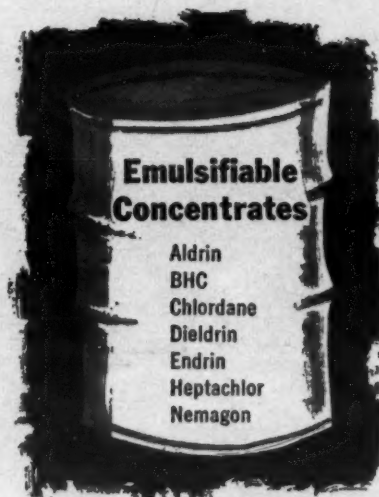
The use of "MH-40," trade name of a product for the control of quackgrass, wild onions and to retard grass growth, is described in new literature prepared by Naugatuck Chemical, Division of the United States Rubber Co. The quackgrass control folder includes instructions for use of "MH-40," a table for mixture, advantages, use in the garden and other information. Another folder explains the use of the product to retard grass growth along highways, cemeteries, golf-course roughs, airfields and unused areas. Check No. 6749 on the coupon and mail it to Croplife to secure the literature.

No. 6747—Systemic Herbicide

A folder describing "Amino Triazole" weed killer, a systemic herbicide for perennials, has been prepared by the American Cyanamid Co. The folder states that the product kills Canada thistle, sow thistle, quackgrass, poison oak, cattails, Bermuda grass and various other weeds and grasses. The product also destroys the roots, the folder explains. Instructions for use are included in the folder. Secure it by checking No. 6747 on the coupon and mailing it to Croplife.

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CHASE BAGS
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NOW! You Can Field Mix Liquid Fertilizers and Pesticides



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Further advantages of this novel system:

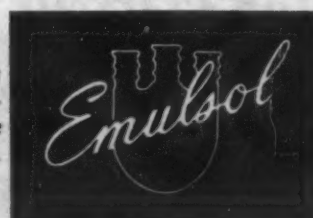
1. Emulsifiable pesticide concentrates are compatible in liquid fertilizers regardless of sources of NPK (Nitrogen, Phosphorus, Potassium).
2. Emulsions are easily formed with minimum agitation.
3. Maximum flexibility is provided for controlling pesticide-fertilizer dosages in mixed crop requirements.
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All these advantages make this novel system economically attractive to formulators.

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Doing Business With

Oscar & Pat



By AL P. NELSON
Croplife Special Writer

When Pat McGillicuddy came to work that spring morning, he wore a rather old blue suit. Oscar Schoenfeld, his rotund, balding, frugal partner, looked up critically from his discounts.

"Well," he said before Pat had hung up a straw hat, "I got the collection list on your desk. Ach, it is long. I hope you collect from twenty or thirty of them. We need the money."

"Oh," said Pat a little surprised. "I wasn't figuring on collecting to-

day. It's getting a little late in the season, and I want to finish getting the demonstration garden in."

"The demonstration garden!" Oscar exclaimed. "Himmel, that can always wait. Money comes first."

"The weather man says it's going to rain tomorrow," Pat said. "I'll collect tomorrow. Farmers will be indoors when it rains. Anyway, I'll feel better collecting after I know that garden is in. Want to help me? The exercise might be good for you, Oscar." Pat's glance was directed at Oscar's plainly visible pot belly.

"Ach, I will haf nothing to do with

that garden foolishness," Oscar stated.

"But it helps us sell tractors, insecticides, garden tools and other things, Oscar. We traced many sales to it last year."

"If you wouldt spend that time collecting we would be better off yet," Oscar grumbled. "Business comes first; monkey-shines come second."

"This garden is no monkey-shines. It is promoting business for us."

But Oscar did not answer. He had wasted enough time talking about nothing. His discounting had suffered.

Pat was used to such rebuffs from his tactless partner, and Oscar's atti-

tude didn't bother him too much. He went into the washroom, slipped a pair of khaki pants over his blue trousers, put on a pair of old shoes and went outdoors, whistling an Irish tune.

"Ach, look at him!" Oscar said loudly. "All those collections to make, and his desk to clean up—and he goes and monkeys aroundt in the garden."

But Tillie Mason was busy with her monthly billings and refused to comment. She merely looked at Oscar, smiled and went back to work.

In about ten minutes Oscar got up from his desk, walked to a window and peered out.

"All those signs he is putting up. You wouldt think he was getting ready for a carnival. 'Manure Was Used Here.' That's where he dumped that loadt of manure he bought from a farmer that owed us money. '10-10-10 used here.' If he paidt to have those signs made I will get madt. He could make them himself nights—him and that high falutin wife of his."

Still Tillie said nothing.

Oscar went back to his desk for another 15 minutes. Then he got up and peered through the window again. "Ach, now he is putting out garden tractors and power mowers, two of each, on the side of the garden and covering them with plastic covers."

"He wants to sell some, I suppose," Tillie said without looking up. "He wants to show people how garden tractors look covered up."

"Yah, just like he covers up my collection lists on his desk!" Oscar sneered. "Tillie, I think I am going to quit this business. I get sick every day watchin' that Irisher do business the wrong way. Why don't he tend to what business we got instead of looking for a crazy sales idea every day?"

Once more Tillie thought it wise to hold her tongue. She was afflicted with ulcers, and quite often had to take an ulcer powder, especially when Oscar and Pat began to argue.

At this moment Pat came into the office. There were beads of sweat on his long face, but his blue eyes were eager.

"Oscar," he said, "I just got a grand idea."

"Keep it!" Oscar snapped. "I don't want to hear it."

"But it will boost our business!"

Oscar snorted. "I get boosted too much in this business by you. Go out and boost a little for more collections. That I would like."

"I told you I'll do that when it rains," Pat said patiently. "Oscar, if you and I owned a farm then we would really prove to farmers that full fertilization, and the proper uses of farm chemicals and supplies really produce results."

"We shouldt buy a farm! McGillicuddy, have you gone crazy?"

"No. If we had a farm, we could really have the soil tested the way it ought to be. Then we could fertilize right up to soil test recommendations. Few farmers do that. Then they could see what fine crops one can grow with full fertilization. And what yields we can get. Oscar, that would be a wonderful business idea."

"Ach, it wouldt be a dry year," Oscar said. "And the fertilizer and the seed would lie in the groundt. Or maybe a hailstorm wouldt come and blow down all the corn. And the taxes wouldt go up."

"Oscar, why must you always see the dark side of things?" Pat said. "That's no way to get ahead in business."

"I do not dream like you, McGillicuddy. I keep my feet on the groundt. We are in the fertilizer business—that is enough. One thing at a time. A farm? Foolish."

"Then you won't go along with me on buying a farm?"

"No!" Oscar was already back figuring discounts.

"Even if I get a real bargain?"



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"NO. No farm. Let's not grow more horns. Let's pull them in. The Russians may have us in a few more years."

Tillie Mason got up from her desk. "I told you men that if you argue I'll quit. I've got a good notion to do it again. Anyway, I'm takin' off a half hour for coffee until you argue it out."

"Ach," cried Oscar. "See what you've done. Now she sits and drinks coffee on our time. Go in the garden Go anyplace. Just let me work. Himmel, somebody must work around here."

Pat sighed. "Well, I might as well forget the farm. But it's still a good idea. Oh well, I'll take this picket fencing and string it around the outside of the garden. Might give somebody the idea to fence in their garden."

"Ach," cried Oscar angrily, "better you should throw the picket fence around customers that owe us money. And don't let them out till they pay. And make them buy the fence, too, for cash—full price."

North Carolina Dealers' Group Changes Name

RALEIGH, N.C.—The North Carolina Grain Dealers Assn. became the North Carolina Grain & Feed Dealers Assn. at the annual convention of the group held recently at the Sir Walter Hotel here.

The change came following consideration of the proposal for the past year.

Election of officers was another part of the business meeting. Elected president was Loy W. Ledbetter, Jr., Ralston Purina Co., Wilson. T. C. Flood, Eastern Carolina Feed & Seed, Elizabeth City, was named vice president, and O. W. Faison, North Carolina Department of Agriculture, was reelected secretary-treasurer.

New directors elected for 1958-59 are George King, Ayden; H. I. Davis, Seven Springs; Leroy Powers, Moxock, and Don Biggerstaff, Rocky Mount.

Mr. Flood, also chairman of the membership committee, said growth of the organization has been rapid during the past year. Allied membership increased by 500% and active membership by 25%, he said.

A turnout of approximately 180 persons registered for the convention to take part in the business session and the general sessions of the convention. Speakers were Bill Tate, Merrill Lynch, Pierce, Fenner & Smith, Raleigh, who spoke on "Hedging for Protection;" Dean Clark, publisher, Grain & Feed Journal, Chicago, who spoke on "Will the Independent Grain Handler Survive?" and Tom Anderson, The Andersons, Maumee, Ohio, who spoke on "Profits in Grain Handling and Marketing."

A discussion on salesmanship was led by Prof. E. A. Fails, department of economics, North Carolina State College, and Lester Rose, secretary, Raleigh Chamber of Commerce, was speaker at the banquet. Another feature of the banquet was the presentation of a gift to O. W. Faison, secretary, for his service to the association.

MOREA MIXER-DISTRIBUTOR

NEW YORK—Central Fertilizer & Chemical Co., Moses Lake, Wash., has been appointed as a mixer-distributor of new Morea liquid supplement for ruminant animals, it was announced recently by U.S. Industrial Chemicals Co., division of National Distillers & Chemical Corporation. Dr. Harry J. Prebluda, manager, U.S.I. special products sales, said the Moses Lake company is the first mixer-distributor named by U.S.I. in the Pacific Northwest.

V-C FIRE

BIRMINGHAM—Fire nearly destroyed a plant of Virginia-Carolina Chemical Corp. here recently.

JAMES A. POTTS

(Continued from page 13)

Low Mark-up a Problem: In rounding up a dealer's responsibilities, in my way of looking at it, it all sums up to one thing: The dealer is the customer's headquarters for honest recommendations and the specialist or doctor of his agricultural needs.

A dealer's problems are many and, so often, not understood by the manufacturer, jobber and salesman. First and most important to consider is the biggest problem of making a profit. Without any doubt, we could talk all day and night and still accomplish nothing when we consider making a profit. We all know it is hard; it is cold business and probably the biggest challenge to a man to make a profit for himself or his organization and,

believe me, it is getting harder day by day.

This might seem elementary to many, but it is something a dealer must practice: Mark merchandise up a certain percentage above the previous year's operating cost. I think each dealer is entitled to a reasonable profit, but there are some companies and concerns that try to lure the dealer into an eight, nine or ten percent mark-up on merchandise. Let me ask a very serious question: Who can operate on such percentages and remain aggressive?

Credit: Another giant of a problem is credit. Really, I honestly don't know why dealers don't start to realize that we have banks. Do the supermarkets charge? No. Do the businesses who have a high mark-up, such as jewelry stores, etc., charge? Yes. How many dealers are able to have such a large mark-up? Not one. Well, why should dealers try to carry clients when there are organizations set up to handle such needs for deal-

ers and farmers on anything that they might want to purchase?

Other problems of the dealers are:

Getting sufficient help from the manufacturers.

Keeping informed on the latest developments.

Advertising on the local level.

Teaching more good merchandising techniques.

Encouraging and teaching him how to make a profit.

Cultivating a profitable business so that the manufacturing company will gain sales.

Learning how to be a good listener to salesmen who are trained and informed on the newest and latest products.

Remember also one selling concept. That is, women shop for bargains on shoes, groceries, etc., but men generally are looking for a specific product for their specific needs.

Sell the customer your product, but sell him honorably so he will return.

"My Customers prefer Phillips 66 Ammonium Nitrate"

—Marvin Blair, King City Elevator, King City, Missouri



Marvin Blair (left) is a successful fertilizer dealer, serving farmers in Gentry and De Kalb counties in Missouri.



Proof of Performance: Users of new Phillips 66 Ammonium Nitrate find it easier to store and spread . . . the result of an exclusive Phillips 66 process that gives hard, dry and uniformly round prills that prevent caking and clogging in the applicator.

Mr. Blair says: "As a mixed fertilizer dealer selling supplemental nitrogen, I'm sold on the new uniform quality, storability and spreadability of the new Phillips 66 Ammonium Nitrate. My customers prefer it."

The outstanding performance of new free flowing Phillips 66 Ammonium Nitrate is winning new customers for other dealers, too. Their farm customers have discovered that the uniformly round, hard and dry prills provide free flowing application . . . no clogging or caking . . . for more uniform crop response.

Dealers get other extras, too, when they handle Phillips 66 Ammonium Nitrate. Consistent, convincing advertising of Phillips 66 Ammonium Nitrate in leading farm papers, personal service from Phillips 66 field men, and prompt deliveries are included in the profitable benefits of selling Phillips 66 Ammonium Nitrate. Order your supply of Phillips 66 Ammonium Nitrate today.



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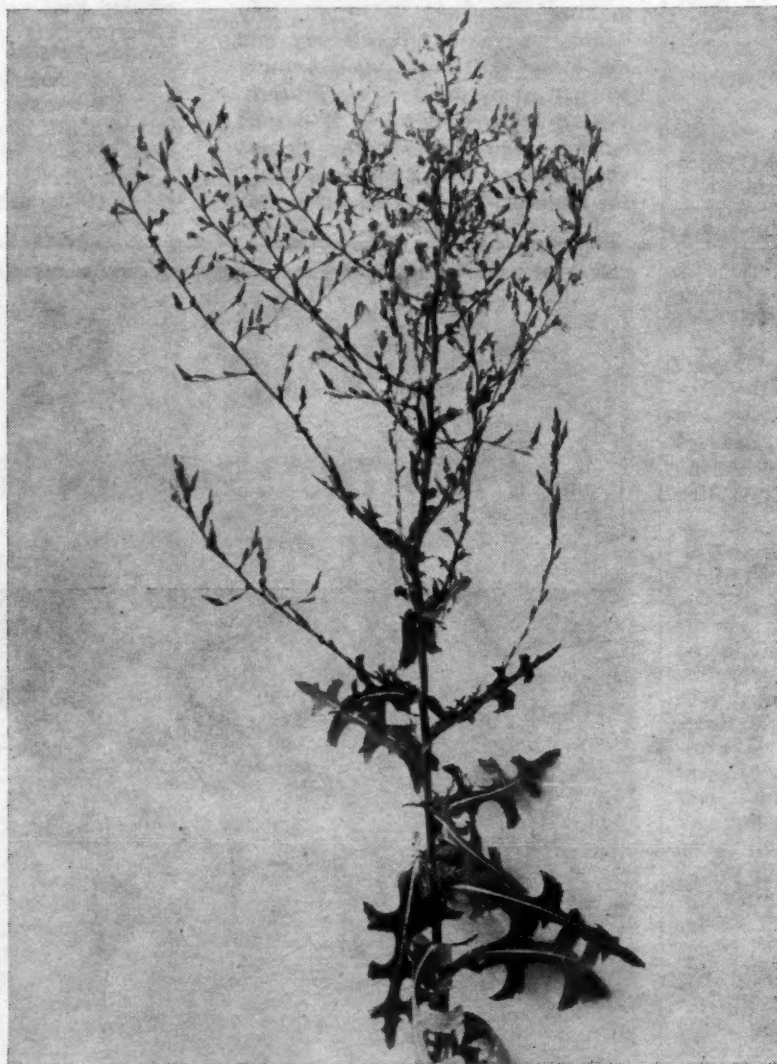
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KANSAS CITY, MO.—201 E. Armour Blvd.
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OMAHA, NEB.—3212 Dodge St.
PASADENA, CAL.—317 North Lake Ave.

RALEIGH, N. C.—401 Oberlin Rd.
SALT LAKE CITY, UTAH—68 So. Main
SPOKANE, WASH.—521 East Sprague
ST. LOUIS, MO.—4251 Lindell Blvd.
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TULSA, OKLA.—1708 Uffia Square
WICHITA, KANSAS—501 KFH Building

WEED OF THE WEEK

Mr. Dealer—Cut out this page for your bulletin board

Prickly Lettuce



How to Identify

This plant is tall, erect, standing from 2 to 6 ft. in height. It is described as being stiff, leafy, hollow, prickly on the lower part and containing milky juice. Leaves are large and coarse; lower leaves are more or less lobed, the upper ones small and linear, all with prickles along margin and along center of lower surface of midrib. The plant is found usually in roadsides, fence rows and in wasteland.

Damage Done by Prickly Lettuce

While not a troublesome weed in cultivated fields, prickly lettuce is prolific in meadows and waste places and must be either cut or otherwise controlled several times during the year to prevent its seeding and thus propagating itself. Prevention of seeding is also helpful in preventing the presence of seeds of this unwanted plant among the seeds of small legume and grass seed. Horses, cattle and sheep are fond of the prickly lettuce and

will graze on the plants if they are available in pastures.

Habits of Weed

Prickly lettuce is an annual or winter annual, reproducing only by seed. It is described in various sources as being a naturalized European weed, and contains a milky substance which accounts for its sometimes being known locally as "milkweed," an inaccurate designation.

Control of Prickly Lettuce

Some herbicidal chemicals are effective in killing this plant, but the mature plant is resistant to some. However, immature plants readily succumb to sprays of 2,4-D, for instance, and can be controlled if treated early in the season. Cultural means of control include cutting several times a year to prevent seeding, as noted above. If an area should become heavily infested with the weed, plowing it under is mentioned as a means of stopping its progress.

Illustration of Prickly Lettuce furnished through courtesy of Dow Chemical Co., Midland, Mich.

INDUSTRY OUTLOOK

(Continued from page 1)

last 60 days has helped us recoup from 70% to 100%, although some business was missed completely."

One industry man said he did not expect sales to work back up to a satisfactory level this year, especially on the West Coast. "Cotton and rice growers, normally large users of pre-plant fertilizers, were forced to forego this because of the unseasonable wet weather," he said. "However, indications point to side-dressing as soon as a good stand appears which would extend the season into late June or early July. This could improve the season's sales considerably."

A spokesman for an eastern fertilizer company reports that "the level of volume for ammonium sulphate has been very satisfactory, even through the cold wet winter and early spring." His counterpart in the Midwest indicated that as of May 23, fertilizer sales had not equaled those of last year. He adds however that "there's a possibility that total sales may be greatly improved by the end of July."

A spokesman for a firm dealing exclusively in anhydrous ammonia indicates that in his opinion, tonnage lost during the early part of the season will be recouped completely except in the South and Far West. "The delayed season in these areas will put a heavy burden on side dressing, but an over-all increase is anticipated, however," he said.

A mixer in the Southwest, however, reports that as far as he is concerned, dollar volume and mixed fertilizer tonnages are ahead of those of last year. His report, made May 20, voiced an optimistic view of the whole situation as regards fertilizer sales. "We believe a successful farmer is a good businessman. With increasing costs, he realizes he must increase his per acre yield and improve quality. This is done best by ample fertilization and by controlling weeds and insects on the farm."

A respondent writing from an Atlantic Seaboard state, reports that fertilizer sales are not up to last year, but given a couple of weeks of good weather, could be. His observation, dated in the latter part of May, is in keeping with those of other respondents in the area.

A midwestern mixer observes that there is a big improvement in his trade area of Iowa and Nebraska as compared to the previous two years. He says, "Farmers are becoming more aware of the economics of fertilizer use, trade associations are doing a better job, and drouth conditions are over in our area. This all adds up to better sales prospects for this year and future years in this area."

A spokesman for another midwestern supplier says that sales of anhydrous ammonia for direct application have been good, particularly for pre-plant applications and over-all the tonnage should pass that of last year. He observes further that the basis for optimism in the direct application of NH₃ lies in the effectiveness of local distributors.

Question: Secretary Benson is continually trying to reduce government's influence in agricultural economics. How do you regard this trend?

We asked specifically if such a development would tend to reduce sales or whether it would make but little difference to the industry.

Replies were varied to a certain extent, but seemed to carry the general idea that anything the government can do to get out of agriculture is going to benefit the fertilizer indus-

try eventually, as well as farming in general.

Probably the matter was summed up most succinctly by John L. Gillis, vice president of Monsanto Chemical Co., who observed that "subsidization of farmers by government has helped fertilizer sales. If parity supports were discontinued, as well as other forms of government subsidy, it would affect sales adversely, at least temporarily. For the long pull without government subsidy, sales would increase gradually with peaks and valleys according to the economy as a whole."

A midwestern mixer observes that a trend toward less government influence in farming would be a good thing, but adds that it might tend to reduce sales if policies made

by the government are not announced well ahead of the season involved.

Another industry representative said that: "Much has been said against Mr. Benson, but I feel he is basically trying to improve the lot of the farmer by returning his independence. Once a farmer is allowed to farm as much land as he wants and grow as much as he can, the law of supply and demand will again be the governing factor. We all know that present farm output is insufficient to feed our ever-increasing population. Here then the fertilizer industry will play a major role in increasing production per acre to the highest level of profit to the farmer. Sales may tend to fall off slightly at first, but I would think only temporarily until the levelling off period was reached."

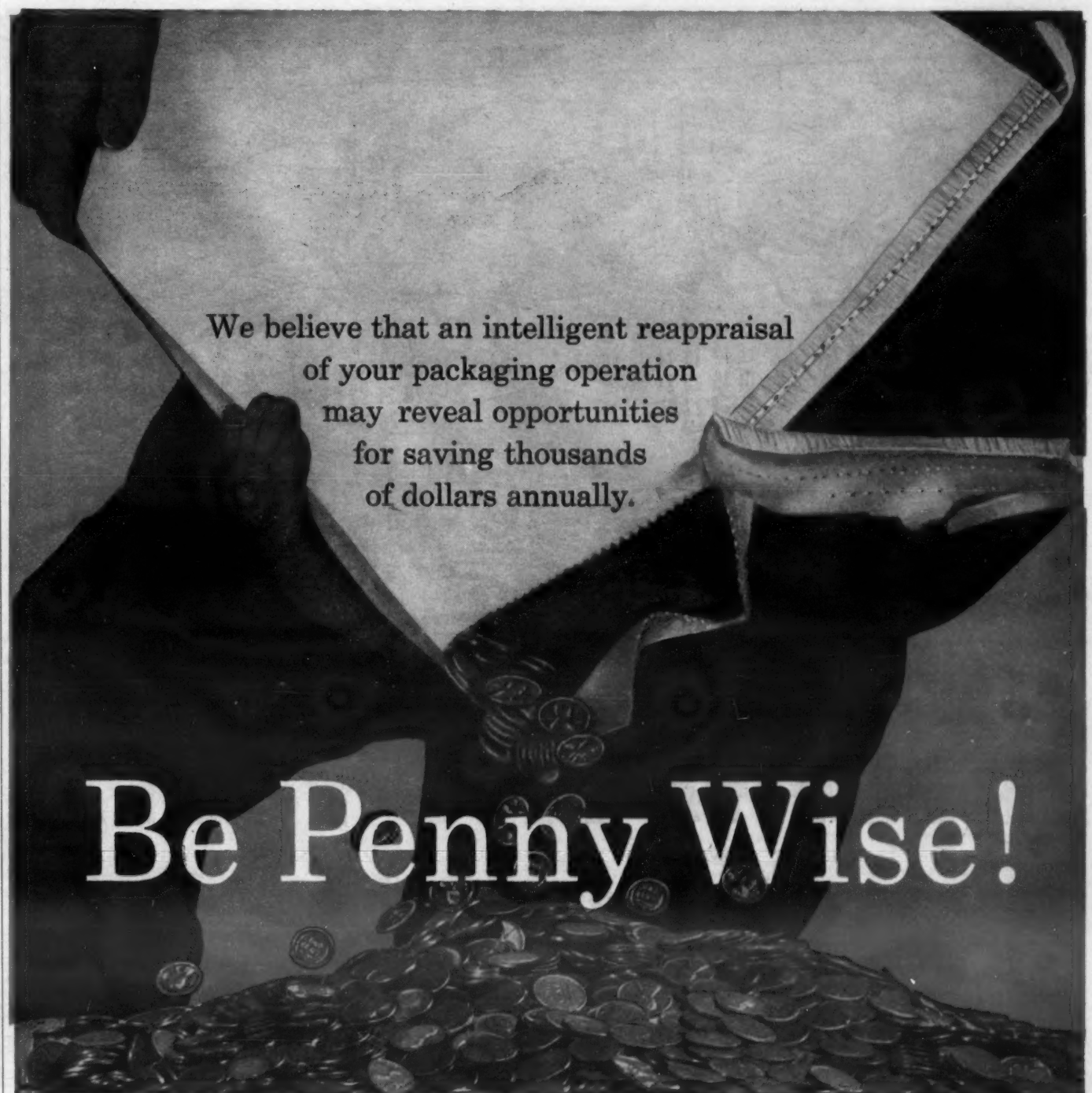
A spokesman for a midwestern supplier declares that farming would be benefited by less government influence. "I personally believe that this

is excellent and will enhance the sales of fertilizer in the future. There is no tendency to reduce sales, not even temporarily, if government reduces its influence on the farm."

Another fertilizer manufacturer who operates in the Southwest indicates that farmer referendums on basic crops will continue high price supports in spite of attempts to lower them. He adds that this situation will not tend to reduce sales.

Comment by a supplier in the Southeast, regarding government's influence in agricultural economics says that its reduction is a move in the right direction. "There's no reason why the fertilizer industry can't thrive under our present conditions," he said. "We are using now about half of the fertilizer recommended by the extension service which has always been on the conservative side. What we really need is more good fertilizer dealer interest in the farmers' welfare. This would result in his try-

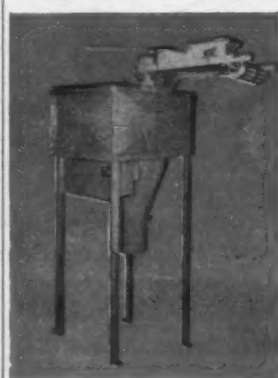
(Turn to OUTLOOK, page 28)



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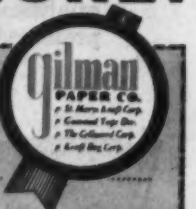
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AN INQUIRY TO DETERMINE CAUSE

Nitrogen Losses in Bagged Fertilizers?

By VINCENT SAUCHELLI
National Plant Food Institute

Do bagged fertilizers in storage lose ammonia?

This question was being asked last year by many chemical control officials and industry men. The reason? State chemists, particularly in the Middle West reported that an unusually large number of fertilizer samples from 1-1-1 and 1-4-4 ratio goods were showing nitrogen deficiencies. The situation was considered serious and had to be faced. Some factor or factors must be responsible. The ammonia undoubtedly was put into the formulation. The industry leans backward in this respect in order to

meet the guarantee. What then could be causing the loss?

To answer this puzzling question a work group was assembled at its headquarters by the National Plant Food Institute. It comprised representatives from government and industry technical staffs under the chairmanship of the writer. The highlights of the deliberations of this group were these:

The most likely cause of the loss of ammonia could be in the manufacturing process. Tests have shown that the following amounts of ammonia can be absorbed per unit of phosphorus pentoxide (P_2O_5) if process conditions are well controlled:

5.8 lb. in normal superphosphate
3.8 lb. in triple superphosphate
7.2 lb. in phosphoric acid (H_3PO_4)

Observations made by TVA researchers at more than 100 commercial fertilizer plants led them to believe that the most likely cause of the loss is in the ammoniator as ammonia or ammonium chloride fumes. The factors could be: overloading the ammoniator, that is, putting in more ammonia than can be absorbed by the phosphate; the presence of conditions which cause under-ammoniation; or a poor distribution of the ammonia or of the acid in the ammoniator, or both.

Proper control of the ammoniation phase is very important in granula-

tion. If granulation is so controlled that the majority of granules are chiefly of the 6-mesh size, it is possible to have 97% of the ammonia input absorbed. If overgranulation is the case and large-sized granules predominate, the loss of ammonia can be substantial because it is more difficult for it to penetrate the large agglomerates within the period allotted.

Many operators are inclined to depend upon crushing oversized granules or lumps rather than carefully to control the formation of the desirable mesh size. The loss of ammonia increases also with the input of acid into the ammoniator which could mean an increase in agglomeration, and hence further loss of ammonia as previously noted.

Some granulating systems favor over-granulation followed by crushing and recycling of fines to keep the operation in balance. But the fines do not ammoniate sufficiently. If recycling is needed for controlling the operation, it is preferable to recycle on-size rather than purposely make over-size granules first and then crushing them.

Another possible cause is this: some operators will have as high as 50% throughout of recycle fines but allow only half of the proper retention time for ammoniation. This apparently is true of the 1-1-1 ratio formulations. In such cases, it is hard not to over-granulate and with large-sized agglomerates dominant, ammoniation becomes less efficient.

Where the operator is using phosphoric acid in the formulation he should be very careful of his timing. Time error is possible and costly. The ammonia distributor and acid distributor should be of the same length. Some operators forget this. The longer the spread-out of ammonia injection the more likely it is to get maximum retention of the ammonia by the fertilizer mixture.

Other pertinent observations: research by the U.S. Department of Agriculture staff at Beltsville, Md., has shown that absorption of ammonia by granulated normal superphosphate increases from 70 to 96% as the initial moisture content of the super increases from 1 to 7%; that ammonia absorption efficiency increases from 84 to 100% as the mean particle size of superphosphate is decreased from 6-10 mesh (2.5 mm diameter) to minus 80-mesh (0.1 mm).

Superphosphates to be ammoniated should have a fine, porous structure, not a hard, dense structure.

The rate of ammoniation should not exceed 6 lb. NH_3 per unit of P_2O_5 in triple super.

The supers should contain not less than 3% moisture. Particle size of granules should be within the 6-20 mesh range.

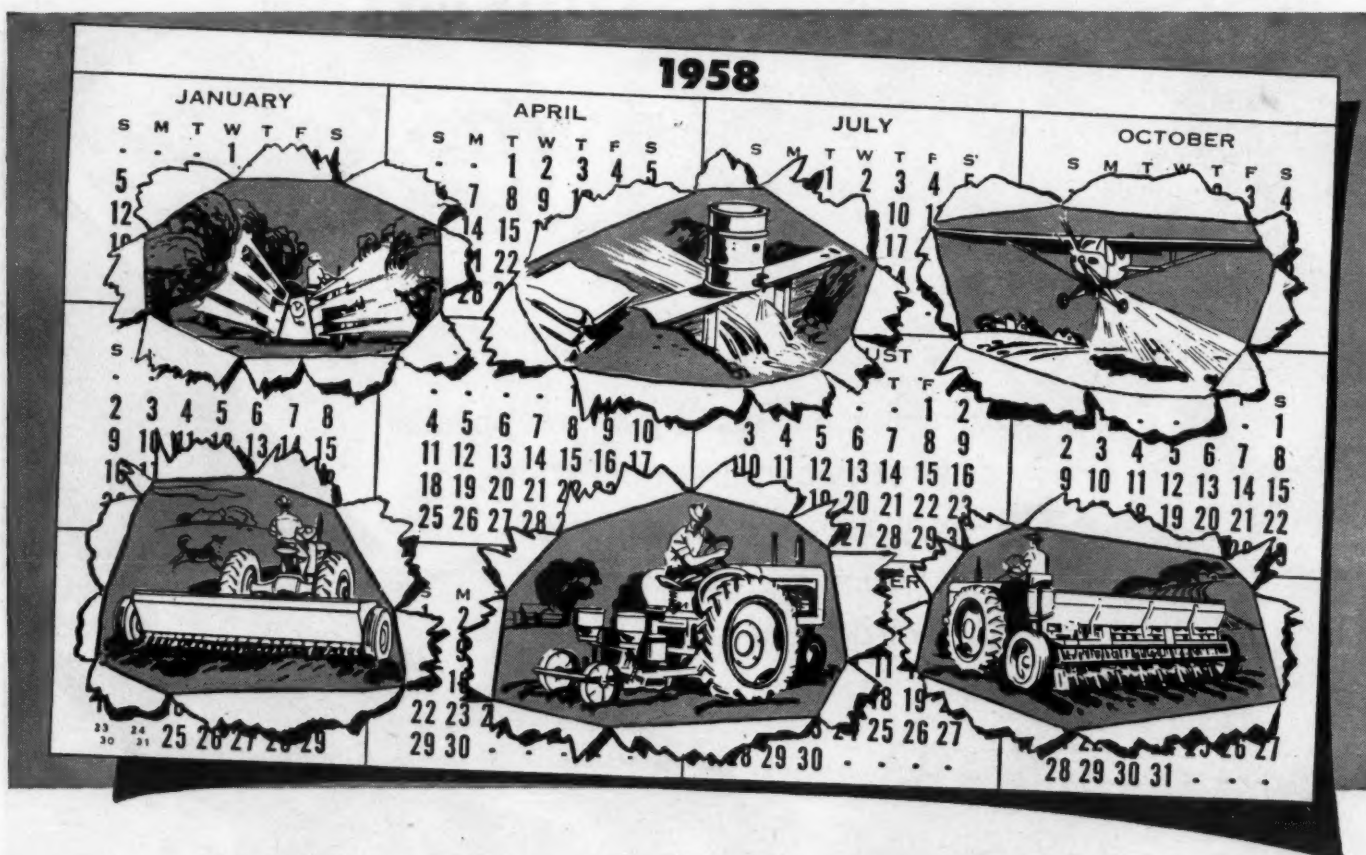
Reaction temperature: does not seem to matter with normal super, but for triple super used in a continuous ammoniator the preferred temperature is 190° F.-212° F.

Reaction period: in the case of triple supers a 3-minute period is best; not so important in the case of normal super.

The technology of fertilizer manufacture has undergone radical changes during the past few years and many operators have not yet caught up with them. Most operators are earnestly interested in producing a high quality product at minimum cost. It is believed that all the major factors favoring loss of ammonia during the processing are well-known to most of the technically educated operators engaged in ammoniation, but not so well-known, or, if known, not carefully applied by subordinates in the operating department.

The work group recommendation following the discussion was this: design an experiment to study the nature and causes of ammonia losses. The first phase would be confined to mixed fertilizers of the high-analysis 1-1-1 and 1-4-4 ratios in bags stored as usual in the producers' warehouse.

The samples for chemical analysis



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were to be drawn first at the plant and at the time the fertilizer was being bagged. Additional samples would be drawn from the same batches at weekly intervals for a period of 12 weeks.

The fertilizer selected was to be both of the granulated and non-granulated types. Ten bags of each of four different fertilizers were to be chosen for the study: namely, 1-1-1 ratio: 10-10-10 or 12-12-12; 1-4-4 ratio: 5-20-20 or 4-16-16.

Dr. E. D. Schall of Purdue University prepared a procedure for sampling and chemical analysis.

Seven fertilizer companies volunteered to cooperate in this study through their chemical control staffs. One company enlisted four of its fertilizer plants. The experiment was carried out in accordance with the recommendations. The chemical analyses were statistically analyzed by the Fertilizer Research Division, U.S. Department of Agriculture, Agricultural Research Service, at Beltsville, Md.

Results: The data showed quite conclusively that loss of ammonia does not occur in any significant amount in bagged goods during storage. The cause, if any, is to be found in the processing of the formulation.

It is hoped that this problem may be pursued further through a review study of the factors in the ammoniation phase of the processes.

The work group comprised: T. J. Bosman, Federal Chemical Co.; J. O. Hardesty, Agricultural Research Service, USDA; E. Harvey, Allied Chemical Corp.; T. P. Hignett, Tennessee Valley Authority; Ove Jensen, the Du Pont Co.; E. D. Schall, Purdue University; J. C. Sharp, Spencer Chemical Co.; H. H. Tucker, Sohio Chemical Co., and V. Sauchelli, National Plant Food Institute.

Companies cooperating in experiments: Armour Fertilizer Works (4 plants), Davison Chemical Co., Division of W. R. Grace & Co., Federal Chemical Co., Indiana Farm Bureau Cooperative Assn., International Minerals & Chemical Corp., Kingsbury & Co., and Virginia-Carolina Chemical Co.

Gibberellic Influences Citrus Fruit Development

RIVERSIDE, CAL. — A gibberellin material has produced significant influences on the development of citrus fruit in experiments at the University of California, Riverside. Charles W. Coggins and Henry Z. Hield, of the horticulture department, obtained increases in vitamin C and juice content by dipping Thompson navel oranges, when almost full size, and nearby leaves in potassium gibberellate (KGA). Also, the rind was smoother and thinner.

KGA increased juice content 9% and vitamin C 13%. However, treated fruits were greener than untreated ones when harvested. The treatment caused no differences in sugar content, total acids, puffiness, size, weight, or tendency to drop.

The effects of KGA suggest that this compound may be found to have important influences on citrus fruit development and quality when applied in suitable concentrations at the appropriate stage of development. More extensive experiments with KGA are now in progress on valencia and navel oranges, lemons, and grapefruits.

South Carolina Shipments

CLEMSON, S.C. — May fertilizer shipments in South Carolina totaled 102,787 tons, compared with 72,526 tons in May, 1957, according to the State Department of Fertilizer Inspection and Analysis. Shipments during the first 11 months (July-May) of this fiscal year totaled 678,944 tons, down about 14% from 788,025 tons in a comparable period a year earlier.

NPFI Makes Research Project Grants to Two State Universities

WASHINGTON—The National Plant Food Institute has announced grants for research projects to Michigan State and Ohio State universities.

The Institute has provided a \$2,500 grant for a Michigan State project to measure crop response to fertilizer use and then evaluate this response in economic terms.

This is the third year the Institute has sponsored the research. Last year the Middle West Soil Improvement Committee provided an additional \$2,000 grant to make possible a more detailed analysis of the results. Dr. L. S. Robertson, of Michigan State University's soil science department and Prof. W. B. Sundquist, of the agricultural economics department are the research leaders.

Specific areas of research include:

(1) measuring the response of corn and sugar beets to various fertilizer application levels; (2) reckoning fertilizer's carryover effects on some of the plots; and (3) measuring the response in terms of fertilizer application rates for the greatest profits per acre or the greatest returns per dollar invested. In addition, the Michigan research men are seeking information on the effect of fertilizers on the nitrogen, phosphate, potash, magnesium, calcium and other mineral content of the crops grown. The research also is being used to calibrate soil tests.

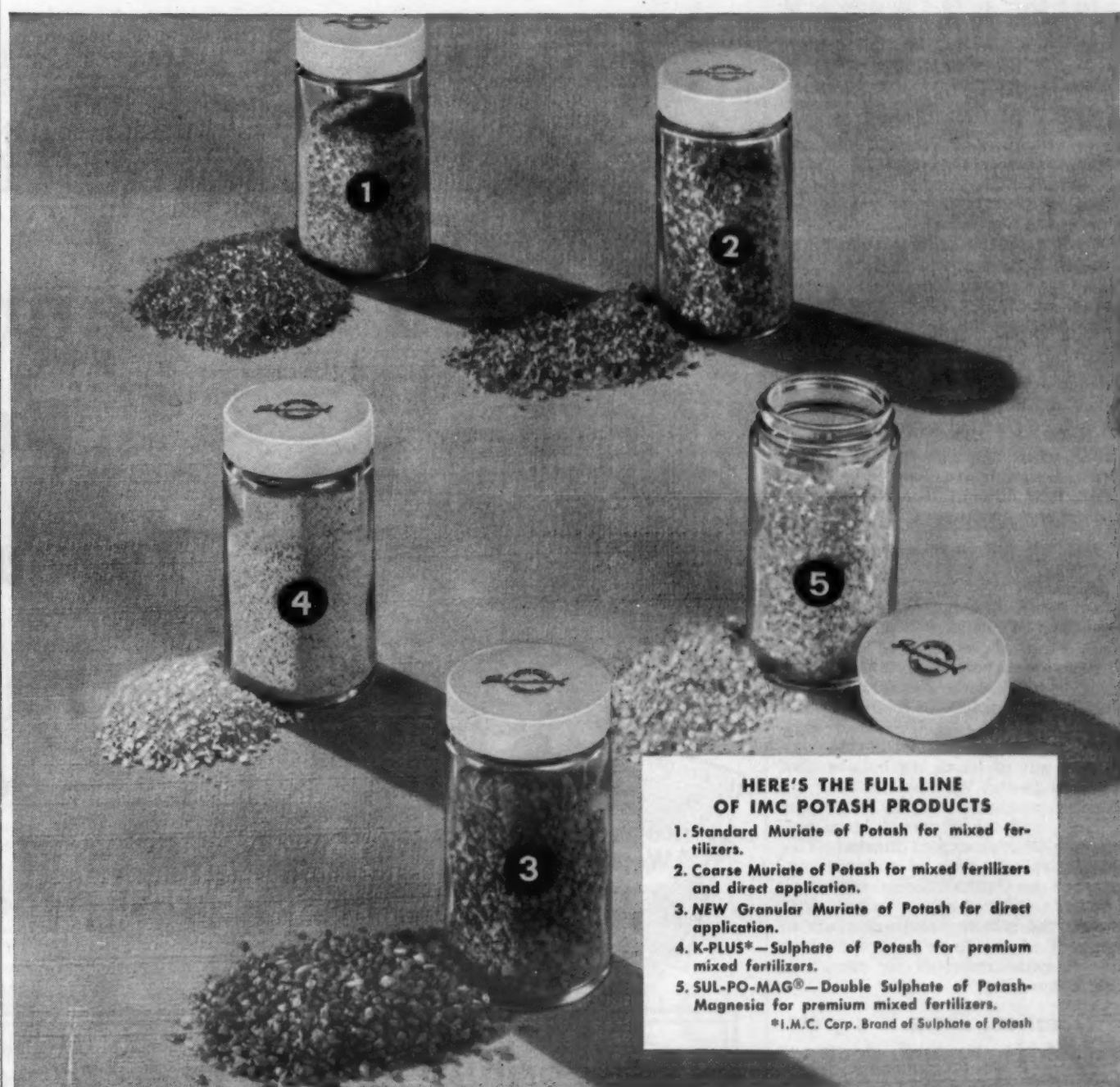
The Institute has made a \$2,000 research grant this year to Ohio State University to help support corn fertilization demonstrations by vocational agriculture teachers.

The program is being administered by the university's agricultural education department, under a research fellowship. University agronomists are cooperating in analyzing and correlating results of the demonstrations.

Don Pfeleiderer, a research fellow, is supervising the work with the vo-ag teachers.

One of the program's prime objectives is to determine how these demonstrations can be most effectively used by vo-ag teachers in classroom and field projects with their students. The Institute has supported the work for the past two years.

This year 200 vo-ag teachers were asked to set out one simple demonstration each on corn fertilization. All of the demonstrations are similar. These plots will indicate response of corn to fertilization on a wide variety of soils, and the tests will serve as a correlation of crop response to soil tests. Vocational agriculture teachers and university agronomists will check the plots and review the results. Dr. H. J. Mederski and Dr. D. J. Hoff, Ohio State University agronomists, are cooperating in the research program to correlate the fertilizer response to soil test results.



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INDUSTRY OUTLOOK

(Continued from page 25)

ing to influence his farmer customers to accept improved farming practices."

A southern fertilizer mixer comments as follows, "A large percentage of our fertilizer sales are for cotton and the constant reduction in the cotton acreage with high support prices is causing a crisis in the cotton industry which is a two-fold problem. Farmers and others with high capital investments cannot realize a profit due to low volume and the high support of prices makes the fiber uncompetitive with synthetic fibers."

"In order for the cotton industry to survive, cotton must be produced competitively with synthetic fibers and the world market of cotton. The success of the cotton industry is of direct importance to the fertilizer industry in our area inasmuch as there doesn't seem to be a suitable or alternative crop with high fertility requirements. The big stumbling block is to get Congress to pass realistic cotton legislation."

An eastern supplier observes that lessening government influence in farming will be good in the long run. He sees a "greater realization of need for plant food by farmers; and the increasing need for food as the population curve increases."

Government interference in farming tends to reduce sales, according to an observer in the Southwest, because of the general uncertainty caused by the fluctuations of government policy. His midwestern counterpart says that he has "complete confidence in Secretary Benson's philosophies and endeavors."

Another fertilizer supplier says that when the government is involved, signals are changed so often that it is difficult to arrive at any sound conclusions.

Not all the comment regarding Secretary Benson's policies was complimentary, however.

Dr. W. L. Garman, vice president, the Best Fertilizers Co., Oakland, Cal., comments as follows, "Secretary Benson's program of reducing acreages in California has likewise reduced the quantities of fertilizers that could have been sold. If prices of agricultural products had not gotten completely out of hand, we believe that farmers in the West would have increased purchases thereby increasing volume, and taken over a large percentage of the export market. This is particularly true of a large segment of the California rice crop which has been reduced approximately 50% during the last two or three years as a result of the farm program which has likewise reduced our export of this commodity."

Question: There is a growing shift toward contract farming. In your opinion, would this development be favorable to fertilizer sales? There is also a definite move toward corporate, or industrial, farming. Would such units consume more fertilizer an acre than do average "family" farms?

Opinion on these questions is somewhat divided among those replying to the Croplife questionnaire. Here are some of the answers received from spokesmen in various parts of the country:

One observer located in the Southwest, sees the situation bringing more volume but also more price competition. He says that not only competition will come, but also pressure to bypass retail dealers. "There will be

fewer grades of fertilizer and more bulk fertilizers would be used to grow big yields of standard quality products," he said.

"The corporate farm, on the other hand, would consume more fertilizer per acre than would family farms on the same number of acres. This is because adequate capital would be available to maximize profits to make more intelligent use of plant foods and other good practices."

Another respondent in the East feels that the shift toward contract farming and selling fertilizers to a corporate farm would be about the same as it is now, with this exception: under a corporate system it would be necessary to purchase more

fertilizers to insure a better profit, necessary in business ventures. Another observer operating in the West, notes rather slyly that such a development might help the volume of fertilizer sales but not the margin of profit.

Still another Midwest respondent says "we are satisfied with our present type of customers." However, he adds that corporate or industrial farms would probably use more fertilizer to the acre than does the present setup with the family farm.

An eastern supplier opines that the efficiency of farming would be stepped up and emphasized to a much greater extent if operated on a contract basis. He says further that corporate or industrial farms would probably use somewhat more fertilizer but adds that "we must remember that the family farm is growing and has to do so to remain efficient."

Contract farming is observed by a

southwestern fertilizer mixer as being a trend which will result in increased sales but at a somewhat lower average price. The same is true also for corporate or industrial farming, which he believes will use more fertilizer to the acre but, again, prices would probably be reduced somewhat.

From the Southwest comes the observation that contract farming is a long-range, spotty development on specialty commodities. Basically, however, early changes in this direction are not to be expected.

When it comes to industrial farming, however, this respondent says that the consumption of fertilizer per unit operated is likely to be increased under such a system, but he adds that the industry had better depend on the average and the above average independent farmer for most of its business out ahead. In dealing with corporate farms, this observer says that the result would probably be lower prices in

for richer ^{sales} fields this fall... Croplife announces

FOUR* special emphasis ISSUES devoted to

OFF-SEASON MERCHANDISING of FERTILIZERS and PESTICIDES



** editorially tailored to 4 crop-areas
to assure top advertising impact*

Once again, in 1958, Croplife offers four special emphasis issues concentrating on the merchandising of fertilizers and pesticides in the off-season. Four issues with maximum readership to pinpoint the situation in four crop-areas of the U.S. . . . tailor-made for each.

July 14, South

July 21, Midwest

July 28, West

August 4, Northeast

Your advertising message can be tailored to these four issues for optimum impact and effectiveness. See the map for states included in the areas covered, and the dates at left showing the issue dates for these areas. Plan now to hit any or all of these regions with your sales story!

--- here's why your ad will sell --->

the long run; and sooner or later these farms would be asking for maximum amounts of credit.

One spokesman said that contract farming and corporate farming both would tend to increase greatly the use of fertilizer, but that "doing business almost wholly with corporate type farms would have a tendency to lower prices. For this reason, service on the part of dealers would be almost eliminated since this type of farm operation would no doubt do its own application, spraying and dusting work.

"Additionally, large volume type sales to an assured source historically have the effect of gaining a lower price. Credit restrictions would undoubtedly be eased considerably and extended terms would become commonplace as this type of operator has a reluctance to tie up capital for any extended time."

From California, a respondent connected with a fertilizer plant comments on contract farming as fol-

lows: "It is likely that contract farming would be favorable to the fertilizer industry. Farmers do not hesitate to buy fertilizer as long as they know they can get a fair price for the product. If they knew in advance the price they would get, I am sure that they would put on additional fertilizer to increase production per acre, thus reducing their cost. This would remove the factor of uncertainty in their production efforts and thus stimulate them to buy plant foods more in line with their requirements."

He also has some astute observations on the general effect of corporate or industrial farming on the fertilizer industry. "It is believed that industrial farming will in the long run increase the consumption of fertilizers on the land. Industrial farmers usually take the advice of the experts in following, or even exceeding, recommended amounts of nutrients, because they have looked into the economics of the fertilizer situation and realize that the greatest profits are made in

increasing production per acre, which can only be done through the application of reasonable quantities of plant foods."

One of the goals most wished for in the fertilizer industry is that of attaining a greater volume of off-season sales in order to avoid the annual pressure of the spring rush and also to have it contribute to a greater annual volume.

One of the questions we asked in connection with the above was "if you were doing business almost wholly with corporate farms, how would this affect off-season sales?"

Replies were not particularly consistent among the many opinions given, but most of them carry ideas of interest to the general trade. One respondent, writing from the West, says that "business with corporate farmers would result in lower prices as the result of more competitive bidding on larger single volume. On the

other hand, of course, sales expenses would be reduced. The problem of credit likewise would be reduced in view of the fact that such industrial operations would unquestionably be able to supply good credit information, upon which our business could operate more efficiently. This would not help off-season sales since these operations, just as in the case of small family type farms, are very reluctant to take materials and to store them off-season."

Somewhat the same opinion was expressed by a southwestern fertilizer mixer who says "corporate farming won't have anything to do with off-season sales, because there is currently a surplus of production facilities in the fertilizer industry and all farmers, irrespective of their type, will purchase their fertilizer as and when they need it."

Still another angle of the situation is voiced by a southwestern sales executive who says that off-season sales are likely to increase in volume on a gradual basis, especially of bulk mixed grades and materials. However, he adds, a lower number of grades would be included in such a situation.

A southerner, in commenting on the off-season sales, says that simply "they would probably be increased." Another, residing in Pennsylvania, says that there would be "improvement" in off-season sales. Others admitted that they simply don't know and show some skepticism on the likelihood of gaining any ground in this direction.

A midwestern commentator points out that off-season sales would depend entirely on the supply situation, that the law of supply and demand would take over and rule regardless of other factors.

One operator, dealing only in anhydrous ammonia, observed that off-season sales would be likely to increase due to volume and price considerations.

Pea Growers Warned To Watch for Two Pests

PULLMAN, WASH.—Washington's dry pea growers have been warned to be on the lookout for the two worst insect pests of this crop. They're the pea aphid and the pea weevil. David Brannon, Washington State College extension entomologist, issued an urgent suggestion that growers keep a close check of fields for the two pests.

Dr. William Cook, federal entomologist at Walla Walla, reported that populations of both the aphid and the weevil are unusually large for this season of the year in some areas. The aphid is several times more abundant in the Walla Walla and Yakima areas this year than usual. The weevil infestation is the heaviest in the Yakima Valley since pre-DDT days, and is also heavy near the Snake River in Whitman County.

Cutworms Active in Oklahoma Alfalfa

CHICKASHA, OKLA.—Cutworms are damaging alfalfa fields in this area, according to Bud Barnes, county agricultural agent, who says the infestation is possibly the worst ever seen here. Several fields have almost been ruined, while gardens are also being attacked. "They're everywhere," said Mr. Barnes, "along the roadsides, on the lawns, and even crawling up on people's porches."

Another insect that has caused considerable damage to broom corn is the toothed flea beetle, however they are now easing up as the plants start growing.

DELAWARE FIRE

SEAFORD, DEL.—Fire recently destroyed the large garage and warehouse of the Huston-Culver Co., a fertilizer firm here. Loss was estimated at more than \$40,000.

EACH ISSUE DESIGNED TO BOOST OFF-SEASON TONNAGE AND PROFITS

Why special issues?

Off-season sales are desirable to everyone concerned, including the buyer. Croplife's editors sense the need for increasing off-season sales to help level off consumer demand, and to lessen the spring rush. For the past two years, special issues have appeared and their success warrants this, the third series.

The Need for Four Complete Issues . . .

Croplife's first Fall Fertilization coverage appeared in a Midwest Marketing Issue—which limited somewhat the scope of the contents. The success of the initial attempt pointed up the need for specialized coverage in each crop-area—South, West, Midwest and Northeast. Four tailor-made issues will bring specialized information to each of these regions.

Editorial Matter Shows the Way . . .

Editorial material is designed to be useful to all segments of the industry—manufacturers, distributors and retailers—in giving fall sales a big push this year. Much of the copy is planned for use in actual over-the-counter sales talks with farmers. Some may be adapted for bulletin board use. Other material can be utilized by dealers in local newspaper advertisements or direct mail campaigns. Plans call for a "question-and-answer" feature; state recommendations for fall fertilization and maintenance of pastures; articles by authorities on fertilization, weed and brush control, insect control and the economics involved. They all point toward the same goal: INCREASED FALL SALES!

Pinpoint Your Advertising Message . . .

This makes it possible—by picking appropriate issues—to key your message to your area of marketing interest—to your prospects. This close tie-in with editorial material will give your advertisements the greatest possible impact. It will deliver your sales messages to your prospects—all the way down the marketing line—at the right time . . . it will help them map out plans for increased fall sales of your products. Here's an opportunity for you to present your specific fall sales story . . . to point to the

things you are doing—the sales-aids you offer—to help distributors and dealers sell.

Reader-Response Assured . . .

Requests for extra copies of the special-emphasis issues of both 1956 and 1957 were received at an unprecedented rate, with all available copies being exhausted within a short time following their appearance. (We still regret being unable to fulfill all requests.) This surge of response means just one thing: That these special emphasis issues enjoy unusual readership. And that, in turn, is the advertiser's most sought-after assurance . . . that his message will be seen by an interested readership.

Make Your Plans Now . . .

Make plans now to take advantage of this outstanding fall fertilization series of special emphasis issues. Here's an unusual opportunity to tie-in your sales message with complete news and feature coverage of a timely and important subject. Contact the Croplife office nearest you for complete details and any service Croplife's sales representatives can offer.

HERE ARE THE CLOSING DATES

JULY 14, South Marketing Issue, CLOSES JUNE 30

JULY 21, Midwest Marketing Issue, CLOSES JULY 7

JULY 28, West Marketing Issue, CLOSES JULY 14

AUGUST 4, Northeast Marketing Issue, CLOSES JULY 21

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NOW**

Croplife

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Southern states.

ABOUNDING OPTIMISM . . .

Fertilizer Trade Spokesmen Cite Factors Pointing to Greater Sales in Years Ahead

THERE appears to be little doubt about the confidence held by most of the fertilizer industry not only in winding up the current season in good shape despite a slow and disappointing start, but also in showing optimism for future years. The gradual awakening on the part of farmers to the favorable economics of fertilizer use; the possibility of fewer total acres available for agriculture due to urban encroachment; and the increasing numbers of people to consume the food and fiber grown on farms, all contribute to the favorable outlook.

Some specific comments on how leaders in the fertilizer trade feel about the future were included in many of the returned Croplife questionnaires discussed elsewhere in this issue. Quite a number of these rate a second look and thoughtful study to find out why so many industry people are looking to the future with an air of confidence.

It should be noted, however, that the optimism shown was not voiced by everyone who returned our questionnaire. Some respondents were cautious in holding their exuberance under control, by remarking that the future depends on the government and weather conditions; that each season is approached with the attitude that it will be "rougher than the last one"; and that "we do not agree with the optimists." One sensible approach was expressed by a writer who said his company is not exactly optimistic, but it does expect to enjoy a normal growth rate over the years ahead.

By far the great preponderance of replies (ratio 8:1) told why the future looks promising to them. Optimism with good reason is quite different from the variety which merely expresses the hope that things will work out all right somehow. These fertilizer trade spokesmen brought forth a weight of evidence difficult to deny. Here is a recap of some of the statements which we believe are worth re-emphasizing here to show that the road ahead promises more than frustration.

"More plant food will be used per acre . . . rates are going up. More land planted in continuous corn, and heavy fertilization of grassland in the southeast . . ." These, writes a respondent, are his reasons for looking ahead with confidence.

Others cited better moisture conditions generally around the country, and the fact that farmers have now had a couple of successive years of good crops to raise their hopes. The growers are also becoming more and more conscious of fertilizer and its aid in making better profits.

The steady improvement in the farmer's economic status, plus an increasing trend for his having more individual control over what he plants and what he buys, add up to an advantage for the fertilizer industry.

The improved means of getting information to the farmer about the economic value of plant food is a big factor in the thinking of some of the optimists who wrote back. That this is being accomplished was noted by several, while others thought the process is too slow. "The key to increased fertilizer use lies in a better educational plant, effective at the farm level," one writer observed. He added that community agricultural leaders, dealers, and more good farmers need to become acquainted with the economics and agronomics of fertilizer use. "There are still too many farmers using yesterday's management practices today for tomorrow's agricultural requirements," another observer said.

Not only for dry fertilizers does the future hold promise, according to our questionnaire respondents. Some in liquid and anhydrous ammonia expressed belief that future years will be good, providing key persons in the informational chain do not fall down on their jobs. "Our basis for optimism in the direct application field of NH₃ lies in the effectiveness of local distributors," one man observes. "Where they are doing a good job of merchandising a sound complete fertilizer program, their business is picking up annually and they are getting more new customers as well as selling greater amounts to their present accounts."

Another purveyor of anhydrous ammonia sees a continuing increase in the sale and application of straight goods. "This assumption is based on an increasing population, present low fertilizing rates, increasing education on fertilizer utilization by plants and more knowledge concerning soil physiology and bio-chemistry," he says.

Here's more optimism based on a sound premise: "Plant food sales in the seasons ahead will increase because farmers are becoming more and more cognizant of the fact that the best way to cut costs is through the efficient use of fertilizers. This trend can be seen in a study of fertilizer statistics for the past several years. Also, plant foods are becoming cheaper and more easily handled and applied. Therefore, they are providing the farmer with a better buy and a more easily-used product."

Another writer exudes not only confidence, but says he is "very optimistic" about the future of the fertilizer industry in his area, the Southeast. Says he, "I base this primarily on better crop and livestock prices, greater consumer demands for these products, and a general expanding of the economy in the Southeast. In addition to this, we have no forage feed reserve in this area which must be built back up to normal. Our farmers are just beginning to recognize the economics of fertilizer use and as our farm sizes grow larger and are operating on a business basis, we are going to see more economical production. This can be done only through improved varieties and increased use of fertilizers." See what he means?

This still isn't all, not by a mailbag full. Another comment: "We believe the successful farmer is a good business man. With increasing costs, he realizes he must increase his per acre yield and improve the quality of his products, both of which are done best by ample fertilization, weed control and insect control."

The trend away from the soil bank, resulting in more acreage of row crops planted, plus the activities of extension people to encourage farmers to use recommended grades and rates of fertilizer on all crops and on pastures, is seen by another respondent as pointing to better times.

The increasing use of irrigation on many crops is seen by another writer as promising the consumption of more fertilizer. Without the assurance of abundant crop yields, investments in irrigation equipment would be somewhat short of paying out, this writer reasons, and this situation prescribes the application of optimum amounts of plant food to complete the cycle.

There are additional comments, many of them, in fact. We wish there were space to carry them all, but these should suffice to indicate an atmosphere of anything but pessimism in the trade.



Croplife's Home Office

Croplife



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CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is \$5 for one year (\$8 a year outside the U.S.). Single copy price, 25¢.

LAWRENCE A. LONG

Editor

DONALD NETH

Managing Editor

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Fred C. Scribner, Jr.



W. E. McGuirk



Webster Pendergrass

NPFI PROGRAM HEADLINERS—Speakers appearing on the program of the annual convention of the National Plant Food Assn. being held June 16-18 at the Greenbrier Hotel, White Sulphur Springs, W.Va., include representatives of government agencies, land grant colleges and the industry. Two panels are scheduled to appear on the program; one to discuss "Changing Farmers' Attitudes Toward Fertilizers," and the other "Changing Farmers' Fertilizer Practices." In addition, awards to editors for outstanding contributions toward soil building are to be

presented, and two motion pictures shown. Above are three speakers appearing on the program. Fred C. Scribner, Jr., under-secretary of the treasury, speaks on "The National Economy, Today and Tomorrow"; W. E. McGuirk, chairman of the NPFI's special study committee, appears on the panel discussing industry's role in changing farmers' attitudes toward fertilizers; and Webster Pendergrass, dean of the College of Agriculture, University of Tennessee, will talk on what state agricultural colleges can do toward this end.

MEETING MEMOS

July 1-10—Georgia Fertilizer Meetings Sponsored by the Georgia Plant Food Educational Society; July 1, W. H. Norris Farm, Pike County; July 2, T. B. McDowell & Sons, Dougherty County; July 9, Ernest Nunn Farm, Jackson County; July 10, Banks Dairy Farm, Bulloch County.

Aug. 12-13—Ohio Pesticide Institute, Summer Field Tour, Ohio Agricultural Experiment Station, Wooster, Ohio, J. D. Wilson, Ohio Agricultural Experiment Station, Wooster, Institute Secretary.

Dec. 3-4—North Central Weed Control Conference, Netherland Hilton Hotel, Cincinnati.

Meeting Memos listed above are being listed in this department this week for the first time.

June 17-19—Second Annual Turfgrass Conference and Tour, Tidewater Research Station, Holland, Va.

June 17-19—American Grassland Council's Annual Meeting, in conjunction with American Dairy Science Assn., Raleigh, N.C.

June 24—West Virginia University Agronomy Field Day, Reymann Memorial Farms, Wardensville, W.Va.

June 25-27—Pacific Branch, Entomological Society of America, San Diego, Cal.

June 28—Del-Mar-Va Peninsula Fertilizer Assn., Annual Meeting, Ocean City, Md.

July 8-10—Pacific Northwest Plant Food Assn., Ninth Annual Regional Fertilizer Conference, Pocatello, Idaho.

July 11-12—Pacific Northwest Section, American Society of Range Management, Summer Meeting, Kamloops, B.C.

July 13-16—American Society of Agronomy, Northeast Branch, Cornell University, Ithaca, N.Y.

July 13-15—Plant Food Institute of Virginia and North Carolina, Sum-

mer meeting, Cavalier Hotel, Raleigh, N.C.

July 17-18—Southwest Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.

July 24—West Virginia University Agronomy Field Day, Ohio Valley Experiment Station, Point Pleasant, W.Va.

July 29-30—Annual Fertilizer Industry Conference Sponsored by the Alabama Polytechnic Institute Experiment Station; Black Belt Substation near Marion Junction, Ala. (July 29) and Prattville, Ala. Experiment Field (July 30).

July 30—Kentucky Fertilizer Conference, Greenville, Ky.

Aug. 4—National Joint Committee on Fertilizer Application, Annual Meeting, Purdue University, Lafayette, Ind.

Aug. 4-8—American Society of Agronomy, Annual Meeting, Purdue University, Lafayette, Ind.

Aug. 20-24—Canada Fertilizer Assn. (formerly Plant Food Producers of Eastern Canada), Annual Meeting, Manoir Richelleu, Murray Bay, Quebec.

Sept. 4—Grassland Field Day, Rutgers University Dairy Research Farm, Beemerville, N.J.

Oct. 14-15—Western Agricultural Chemicals Assn., Annual Meeting, Villa Hotel, San Mateo, Cal., C. O. Barnard, 2466 Kenwood Ave., San Jose 28, Cal., Executive Secretary.

Oct. 20—Annual Sales Clinic of Salesmen's Assn. of the American Chemical Industry, Inc., Roosevelt Hotel, New York.

Oct. 20-21—Fertilizer Section, National Safety Council, annual fall meeting, La Salle Hotel, Chicago, Ill.

Oct. 22-24—Pacific Northwest Plant Food Assn., Annual Meeting, Gearhart, Ore., Leon S. Jackson, P.O. Box 4623, Sellwood-Moreland Station, Portland, Ore., secretary.

Oct. 28-29—Northwest Garden Supply Trade Show, Masonic Temple, Portland, Ore.

Oct. 29-31—Fertilizer Industry

Round Table, Sheraton Park Hotel, Washington, D.C.

Oct. 29-31—National Agricultural Chemicals Assn., 25th annual meeting, Bon Air Hotel, Augusta, Ga.

Nov. 9-11—California Fertilizer Assn., 35th Annual Convention, Ambassador Hotel, Los Angeles, Sidney H. Blerly, 475 Huntington Drive, San Marino 9, Cal., General Manager.

Nov. 18-20—Washington State Weed Conference, Moses Lake, Wash.

Nov. 24-25—Entomological Society of America, Eastern Branch, Annual

Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge \$2.25. Situations wanted, 10¢ a word; \$1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Display advertising accepted for insertion at minimum rate of \$11 per column inch.

All Want Ads cash with order.

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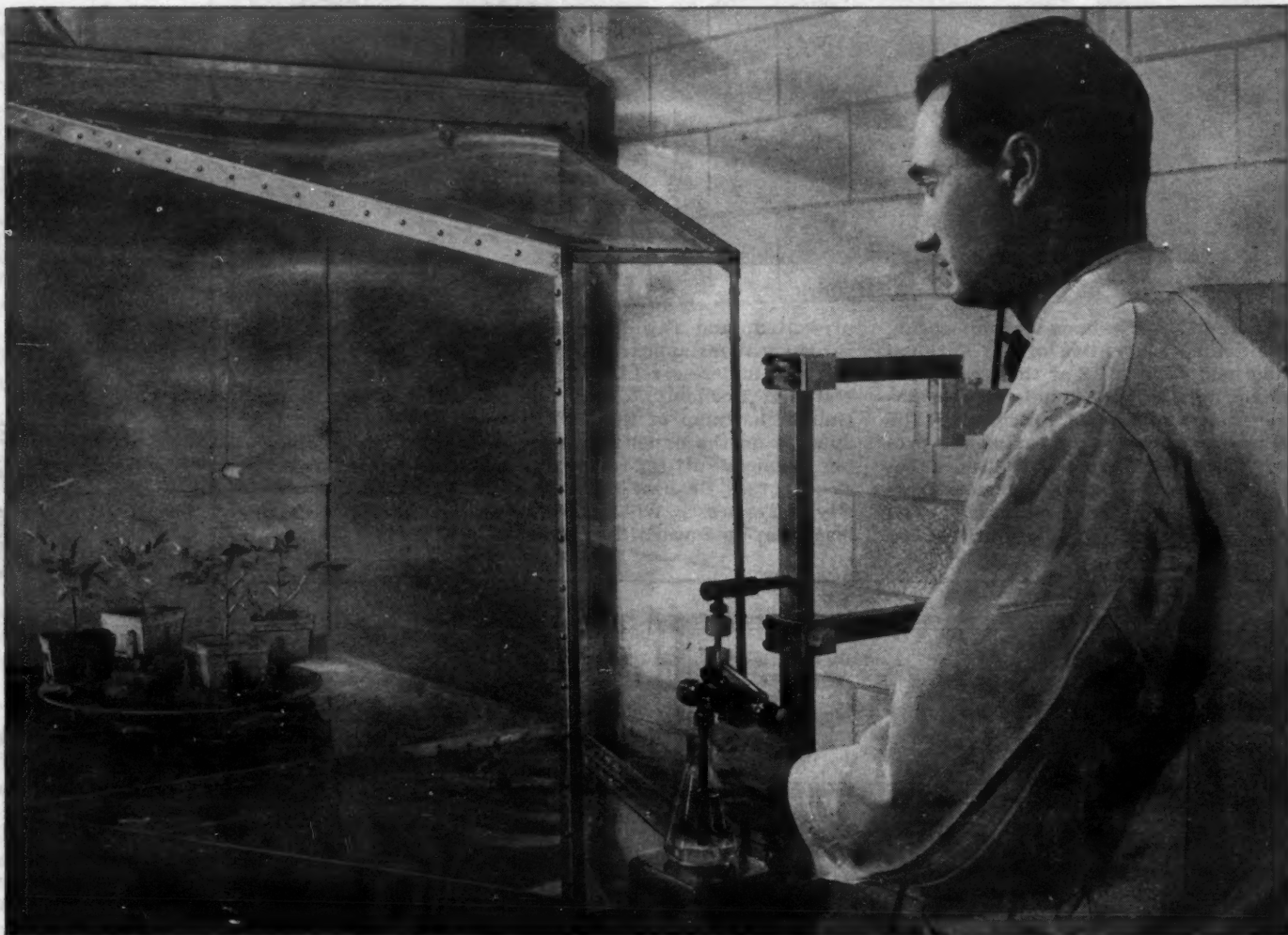
Dec. 1-4—Entomological Society of America, Annual Meeting, Hotel Utah, Salt Lake City.

Dec. 3-5—Agricultural Ammonia Institute, Annual Meeting, Morrison Hotel, Chicago, Jack F. Criswell, Claridge Hotel, Memphis, Executive Vice President.

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Agricultural Chemicals Division, Naval Stores Department

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